Marilyn Claire Wolf

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Education

April, 1984 *Doctor of Philosophy, Electrical Engineering, Stanford University*. Thesis title: *Two-Dimensional Compaction Strategies*. Advisor: Prof. Robert W. Dutton.

June, 1981 *Master of Science, Electrical Engineering, Stanford University.*

June, 1980 *Bachelor of Science, Electrical Engineering, Stanford University.* Graduated with distinction.

Employment

August, 2024—present *Elmer E. Koch Professor of Engineering, University of Nebraska – Lincoln, Lincoln NE.* Responsible for projects and proposals in semiconductors, research and teaching.

August, 2023—August 2024 *Elmer E. Koch Professor of Engineering and Director for ORED Engineering and Technology Initiatives, University of Nebraska – Lincoln, Lincoln NE.* Responsible for large CHIPS Act-related projects and proposals, both research and workforce development.

August, 2021—August 2023 *Elmer E. Koch Professor of Engineering and Director, School of Computing, University of Nebraska – Lincoln, Lincoln NE.* Led the formation of the School of Computing. Hired nine new tenure-track faculty and one professor of practice.

August, 2019—August 2021 *Elmer E. Koch Professor of Engineering and Chair, Department of Computer Science and Engineering, University of Nebraska – Lincoln, Lincoln NE.* Led the development of the proposal to create the School of Computing. Led CSE through the COVID-19 pandemic.

July, 2007—August, 2019 *Professor, Rhesa "Ray" S. Farmer Distinguished Chair in Embedded Computer Systems, Georgia Research Alliance Eminent Scholar, School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta GA.* Research and teaching in embedded computing and electrical and computer engineering. Led several large proposals. Organized special issue of *Proceedings of the IEEE*. Created ECE 3030 and wrote *The Physics of Computing*. Courtesy appointments in the School of Computer Science, School of Computational Science and Engineering, College of Management, and Bioengineering Program.

July, 1998—June, 2007 *Professor of Electrical Engineering, Princeton University, Princeton NJ.* Teach classes in embedded computing, VLSI design, computer architecture, and multimedia. Led New Jersey Center for Multimedia Research, NSF Small-Scale Infrastructure Center, IUCRC. Also Associated Faculty, Department of Computer Science.

March 2003—October 2013 *Director/Secretary/Vice President, Verificon Corporation.* Develop and license smart camera technology for surveillance and industrial applications. System was deployed by Japan Rail East.

October 2001—July 2002 *Chief Technical Officer, MediaWorks Technology, Schaumburg IL*. Responsible for product definition, technology development, and chip design.

July 2001—October 2001 *Chief Scientist and Principal SoC Architect, MediaWorks Technology, Schaumburg IL*. Responsible for product definition and technology development.

July, 1995—June, 1998 *Associate Professor of Electrical Engineering, Princeton University, Princeton NJ.* Taught classes in embedded system design, computer architecture, computer-aided design of digital systems, and digital video. Conducted and supervised research in computer-aided design of digital systems, VLSI systems, embedded computing systems, digital video architectures, multimedia computing systems, and digital video libraries.

September, 1989—June, 1995 *Assistant Professor of Electrical Engineering, Princeton University, Princeton NJ.* Taught classes in VLSI design, embedded system design, computer architecture, computer-aided design of digital systems, and digital video. Conducted and supervised research in embedded systems, digital video architectures and algorithms, and computer-aided design of digital systems.

September, 1988—June, 1989 *Visiting Lecturer in Computer Science, Princeton University, Princeton NJ.* Taught CS/EE 420, "Design of VLSI Systems," and CS 598C, "Advanced Topics in Computer Science: Computer-Aided Design."

August, 1984—September, 1989 *Member of Technical Staff, AT&T Bell Laboratories, Murray Hill NJ*. Conducted research in computer-aided design of digital systems: automatic layout, design representation, register-transfer synthesis. Supervised work of co-op and summer students. Supervisors: Dr. Alfred E. Dunlop, Dr. Wolfgang Fichtner.

March, 1984—June, 1984 *Lecturer, Stanford University, Stanford CA*. Taught EE 271, "Introduction to VLSI Systems," and EE 272B, "Testing and Simulation for VLSI."

January, 1984—March, 1984 *Teaching Associate, Stanford University, Stanford CA*. Taught EE 272A, "VLSI Design Project," with Prof. Manolis Katevenis.

March 1978—March, 1984 *Research Assistant, Stanford University, Stanford CA*. Conducted research in VLSI design, maintained computer systems. Supervisor: Prof. Robert W. Dutton.

various times *Consultant*. Held consultancy or summer student positions at Silvar-Lisco, Valid, Digital Equipment Corporation, Hewlett-Packard, NEC C&C Research Lab, AT&T, Intel, Quickturn, Mentor Graphics, Advance, Inc., Clever Systems, WABTEC, Synopsys, NextSierra, Eastman Kodak, Nokia, Sonics, Enterprise Systems Technologies, TSMC, Santa Clara County CA Assessor, Affinity Labs of Texas, Kodak Alaris, Broadcom, San Luis Obispo County CA Assessor, ZF, Pekosoft, NexStep, MediaTek, Samsung, Uniloc, Siemens, WAC Lighting.

visiting positions Visiting Professor, De Montfort University, Leicester, England (1999-2002). Visiting Professor, Stanford University (2001-2002 academic year.)

Selected Professional Activities

General Chair, ACM/IEEE IPSN 2022. Program Co-Chair, ACM/IEEE IPSN 2020. General Co-Chair, IEEE/ACM MLCAD Workshop. Member of board, ACM SIGDA, 2015-2016. Chair, ACM SIGBED, 2009-2011. Chair, IFIP Working Group 10.2, 2007-2012. Vice President of Finance, IEEE Council on Electronic Design Automation, 2005-2007. General co-chair, IEEE CASES conference, 2006. Chair, ACM EMSOFT Conference, 2005. Co-Chair, IEEE MPSOC Workshop. Program co-chair, CASES conference, 2002. Board of Governors, IEEE Circuits and Systems Society, 1998-2000. Editor-in-chief, *ACM Transactions on Embedded Computing Systems*, 2001-2007. Editor-in-chief, *IEEE Transactions on VLSI Systems*, 1999-2000. Co-Editor-in-Chief, *Design Automation for Embedded Systems*, 1996-2005. General chair, ICCD '96. Workshops Chair, ACM MultiMedia '96. Technical program chair, ICCD '95. Program committee, CODES/CASHE 1996. Technical program chair, 1992 IFIP/IEEE/ACM International Workshop on Hardware-Software Co-Design (CODES). General chair, 1993 IEEE/ACM International Workshop on Hardware-Software Co-Design. Chair, Embedded Systems Track, ICCD '93. Program chair, 1992 IEEE/ACM International Workshop on Hardware-Software Co-Design. Vice Chair, Computer-Based Systems Track, IEEE ICCD '92. Program committee, ICCAD '99, '95, '94, '93, '92. Program committee, ACM International Workshop/Symposium on High-Level Synthesis 1994, 1992, 1989, 1988. Program committee, International Symposium on System Synthesis, 1995, 1996, 1998, 1999. US Vice Chair, IEEE VLSI Skills Assessment Inventory committee. Program committee, 1989 ACM/IEEE Module Generation and Silicon Compilation Workshop.

Awards

IEEE Leon K. Kirchmayer Graduate Teaching Award, 2022.

IEEE Computer Society Harry H. Goode Memorial Award, 2019.

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IEEE Circuits and Systems Society Education Award, 2006.

ASEE Frederick E. Terman Award, 2003.

IEEE Computer Society Golden Core Award, 2002.

Fellow, Association for Computing Machinery, 2001.

Fellow, Institute of Electrical and Electronics Engineers, 1998.

Elected to Phi Beta Kappa and Tau Beta Pi.

Dissertations and theses supervised

Mark Reichelt, *An Improved Cell Model for Hierarchical Layout Compaction*, S. M. Thesis, Massachusetts Institute of Technology, May, 1987 (with Prof. Jonathan Allen).

Andres Takach, *An Automata Model for the High-Level Specification and Synthesis of Digital Circuits and Systems*, Ph.D. dissertation, Princeton University, August, 1993.

Tien-Chien Lee, *Behavioral Synthesis of Highly Testable Data Paths in VLSI Digital Circuits*, Ph.D. dissertation, Princeton University, September, 1993 (with Prof. Niraj Jha).

Chun-Yao Huang, *Joint Datapath/Controller Performance Optimization of VLSI Systems*, Ph.D. dissertation, Princeton University, August, 1994.

Ti-Yen Yen, *Hardware-Software Co-Synthesis of Distributed Embedded Systems*, Ph.D. dissertation, Princeton University, June, 1996.

Santanu Dutta, *VLSI Issues and Architectural Trade-offs in Advanced Video Signal Processors*, Ph.D. dissertation, Princeton University, July, 1996.

Michael Kozuch, *Video Service Systems for Networked Video Libraries*, Ph.D. dissertation, Princeton University, July, 1997 (with Prof. Andrew Wolfe).

Yanbing Li, *Hardware-Software Co-Synthesis of Embedded Real-Time Multiprocessors*, Ph.D. dissertation, Princeton University, August, 1998.

Hong Heather Yu, *Digital Multimedia Library Indexing and Retrieval*, Ph.D. dissertation, Princeton University, August, 1998.

Zhao Wu, *Architectural Evaluation of Multi-Cluster Wide-Issue Video Signal Processors*, Ph.D. dissertation, Princeton University, August, 1999.

David Rhodes, *Real-Analysis, ALAP-Guided Synthesis of Real-Time Embedded Systems*, Ph.D. dissertation, Princeton University, August 1999.

Jason Fritts, *Architecture and Compiler Design Issues in Programmable Media Processors*, Ph.D. dissertation, Princeton University, January 2000.

Haris Lekatsas, *Code Compression for Embedded Processors*, Ph.D. dissertation, Princeton University, August 2000.

Yuanlong Wang, *A Distributed Architecture and Crossbar Scheduling Algorithm for High Performance Switch Fabrics*, Ph.D. dissertation, Princeton University, May 2002.

Yuan Xie, *Code Compression Architectures and Algorithms for Embedded Systems*, Ph.D. dissertation, Princeton University, August 2002.

Tiehan Lv, *Design and Analysis of a Real-Time Video Human Gesture Recognition System*, Ph.D. dissertation, Princeton University, August 2004.

Shengqi Yang, *Low-Power System Design: Considering Reliability and Security*, Ph.D. dissertation, Princeton University, March 2006.

Senem Velipasalar, *Multi-Camera Systems: Tracking on Peer-to-Peer Systems, Patio-Temporal Event Detection, and Video Synchronization*, Ph.D. dissertation, Princeton University, November 2006.

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Changhong Lin, *Design and Implementation of Distributed Real-Time Camera Systems*, Ph.D. dissertation, Princeton University, January 2007.

Jiang Xu, *Design, Modeling, and Analysis of Networks-on-Chips for Systems-on-Chip*, Ph.D. dissertation, Princeton University, January 2007.

Cheng-Yao Chen, *Distributed Multi-Modeal Human Activity Analysis: From Algorithms to Systems*, Ph.D. dissertation, Princeton University, November 2007.

Chia-Han Lee, *Power-Efficient Integrated Cognitive and Software Radio System*, Ph.D. dissertation, Princeton University, 2008.

Ahmed Abdallah, *Design of Experiments and the Empirical Development of Embedded System Platforms*, Ph.D. dissertation, Princeton University, September 2008.

Dongwon Lee, *High-Performance Computer System Architectures for Embedded Computing*, Ph.D. dissertation, Georgia Institute of Technology, August 2011.

Se Hun Kim, *Accuracy-Energy Tradeoffs in Digital Image Processing using Embedded Computing Platform*, Ph.D. dissertation, Georgia Institute of Technology, October 2011.

Chung-Ching Lin, *Detecting and Tracking Moving Objects From a Moving Platform*, Ph.D. dissertation, Georgia Institute of Technology, April 2012.

Muhammed Umer Tariq, *Service-Oriented Reference Model for Cyber-Physical Systems*, Ph.D. dissertation, Georgia Institute of Technology, April 2016.

Kruttidipta Samal, *Closed Loop Perception for Resource Efficient Autonomous Systems*, Ph.D. dissertation, Georgia Institute of Technology, January 2022. (with Prof. Saibal Mukhopadhyay)

Patents

U. S. Patent #5,708,767, Jan. 13, 1998, "Method and apparatus for video browsing based on content and structure," B. L. Yeo, M. M. Yeung, W. Wolf, and B. Liu.

U. S. Patent #5,821,945, October 13, 1998, "Method and apparatus for video browsing based on content and structure," B. L. Yeo, M. M. Yeung, W. Wolf, and B. Liu.

U. S. Patent #6,678,413, January 13, 2004, "System and method for object identification and behavior characterization using video analysis," Yiqing Liang, Linda Crnic, Vikrant Kobla, and Wayne Wolf

U. S. Patent #6,691,305, February 10, 2004, "Object code compression using different schemes for different instruction types," Jorg Henkel, Wayne Wolf, Haris Lekatsas.

U. S. Patent #6,732,256, May 4, 2004, "Method and apparatus for object code compression and decompression for computer systems," Jorg Henkel, Wayne Wolf, Haris Lekatsas.

U. S. Patent #7,068,842, June 27, 2006, "System and method for object identification and behavior characterization using video analysis," Yiqing Liang, Linda Crnic, Vikrant Kobla, and Wayne Wolf

U. S. Patent #7,095,343, August 22, 2006, "Code compression algorithms and architectures for embedded systems," Yuan Xie, Wayne H. Wolf.

U. S. Patent #7,200,266, April 3, 2007, "Method and apparatus for automated video activity analysis," I. Burak Ozer, Wayne H. Wolf, Tiehan Lu.

U. S. Patent #7,660,439 February 9, 2010, "Method and system for flow detection and motion analysis," Tiehan Lu, I. Burak Ozer, Wayne H. Wolf

Licenses and Certifications

Federal Aviation Administration: Private pilot, instrument, single engine, land.

Federal Communications Commission: Amateur radio, Amateur Extra Class.

Cases in Which Dr. Wolf Testified as an Expert Witness

Case Name: Mentor Graphics Corp. v. Quickturn Design Sys.
Docket Number: CV 96-342-RE
Court: United States District Court for the District of Oregon

Case Name: Quickturn Design Systems, Inc. vs. Meta Systems and Mentor Graphics, Inc.
Docket Number: C-96-0881 MHP
Court: United States District Court for the Northern District of California

Case Name: Faiveley Transp. Malmo AB v. Wabtec Corp.
Docket Number: 08 Civ. 3330 (JSR)
Court: United States District Court for the Southern District of New York

Case Name: In re Papst Licensing GmbH & Co. KG Litig.
Docket Number: Misc. Action No. 07-493 (RMC); MDL Docket No. 1880
Court: United States District Court for the District of Columbia

Case Name: Assemblyman Reed Gusciora, Stephanie Harris, Coalition for Peace Action, and New Jersey Peace Action v. Jon Corzine, Governor of the State of New Jersey (in his official capacity) and Nina Mitchell Wells, Secretary of State of the State of New Jersey (in her official capacity)
Docket Number: MER-L-2691-04
Court:Superior Court, Law Division, Mercer County, New Jersey

Case name: Nexstep Inc v. Comcast Cable Communications LLC
Docket number: C. A. No. 19-1031 (RGA)(SRF)
Court: United States District Court for the District of Delaware

Siemens: Northern District of California, Case No. 3:20-cv-04151-WHO

Agency Testimony Offered by Dr. Wolf

Agency: United States International Trade Commission
Investigation Number: 337-TA-383
Complainant: Quickturn Design Systems, Inc.

Agency: United States International Trade Commission
Investigation Number: 337-TA-1119

Agency: United States International Trade Commission
Investigation Number: 337-TA-925
Parties: Enterprise System Technologies vs. Apple

Agency: United States International Trade Commission
Complainant: Broadcom

San Luis Obispo CA County Assessor, tax assessment case

WAC Lighting: International Trade Commission, Investigation No. 337-TA-1374

Inter Partes Reviews

Affinity Labs of Texas LLC vs. Samsung Electronics Co, Samsung Electronics America, Samsung Tele-Communications America
Canon Inc, Canon USA, Axis Communications AB vs. Avigilon Fortress Corporation
Renasas Electronics Corporation vs. Broadcom Corporation

Publications

Journal Articles

T. J. Kowalski, D. J. Geiger, W. H. Wolf, and W. Fichtner, "The VLSI Design Automation Assistant: From Algorithms to Silicon,", *IEEE Design & Test*, August, 1985, pp. 33-43.

Wayne Wolf, "Sticks Compaction and Assembly," *IEEE Design & Test*, June, 1986, pp. 57-63.

Wayne H. Wolf, Robert G. Mathews, John A. Newkirk, and Robert W. Dutton, "Algorithms for Optimizing, Two-Dimensional Symbolic Layout Compaction," *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 7(CAD-4), April, 1988, pp 451-466.

Wayne Wolf, "How to build a hardware description and measurement system on an object-oriented programming language," *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 8(3), March, 1989, pp. 288-301 .

Wayne Wolf, Kurt Keutzer, and Janaki Akella, "Addendum to `A kernel-finding state assignment algorithm for multi-level logic'," *IEEE Transactions on CAD/ICAS*, 8(8), August, 1989, pp. 925-927.

Wayne Wolf, "A practical comparison of two object-oriented programming languages," *IEEE Software*, September, 1989, pp. 61-68.

Wayne Wolf, "Recoding-derived bounds for input encoding," *Computers and Electrical Engineering*, 16(4), 1990, pp. 193-201.

Wayne Wolf, "Object-oriented programming for CAD," *IEEE Design & Test*, March, 1991, pp. 35-42.

Wayne Bower, Carl Seaquist, and Wayne Wolf, "A framework for industrial layout generators," *IEEE Transactions on CAD/ICAS*, 10(5), May, 1991, pp. 596-603.

Wayne Wolf, "Synthesis tools help teach systems concepts in VLSI design," *IEEE Transactions on Education*, 35(1), February, 1992, pp. 11--17.

Wayne Wolf, "Object-Oriented Implementation Issues in an Experimental CAD System," *Software: Practice and Experience*, 22(4), April, 1992, pp. 287-304.

R. J. Lipton, D. N. Serpanos, and W. H. Wolf, "PDL++: an optimizing generator language for register-transfer design," *Journal of Computer and Software Engineering*, 1, 1993, pp. 1-16.

Wayne Wolf and Richard Manno, "High-level synthesis from communicating VHDL processes," *IEICE Transactions on Information and Systems*, E76-D(9), September, 1993.

Wayne Wolf, "Partitioning algorithms for complex controllers,"*Integration*, 15, 1993, pp. 117-131.

Nam S. Woo, Alfred E. Dunlop, and Wayne Wolf, "Codesign from cospecification," *IEEE Computer*, January, 1994, pp. 42-47.

Steve C.-Y. Huang and Wayne H. Wolf, "Resynthesis for cycle time in controller-datapath systems," *IEEE Transactions on VLSI Systems*, 2(1), March, 1994, pp. 68-80.

Wayne H. Wolf, "Hardware-software co-design of embedded systems," *Proceedings of the IEEE*, 82(7), July, 1994, pp. 967-989.

Andres Takach, Wayne Wolf, and Miriam Leeser, "An automaton model for scheduling constraints in synchronous machines," *IEEE Transactions on Computers*, 44(1), January, 1995, pp. 1-12.

Andres Takach and Wayne Wolf, "Scheduling constraint generation for communicating processes," *IEEE Transactions on VLSI Systems*, 3(2), June, 1995, pp. 215-230.

Santanu Dutta and Wayne Wolf, "Asymptotic limits on video signal processor architectures," *IEEE Transactions on Circuits and Systems for Video Technology*, 5(6), December, 1995, pp. 545-561.

Santanu Dutta and Wayne Wolf, "A flexible motion estimation architecture," *IEEE Transactions on Circuits and Systems for Video Technology*, 6(1), February, 1996.

Ti-Yen Yen and Wayne Wolf, "An efficient graph-based algorithm for FSM scheduling," *IEEE Transactions on VLSI Systems*, 4(1), March, 1996, pp. 98-112.

Wayne Wolf, "Object-oriented co-specification for embedded systems," *Microprocessors and Microsystems*, 20, 1996, pp. 141-147.

Wayne Wolf, Andrew Wolfe, Steve Chinatti, Ravi Koshy, Gary Slater, and Spencer Sun, "Lessons from the design of a PC-based private branch exchange," *Design Automation for Embedded Systems*, 1(4), 1996, pp. 297-314.

Brain Corporation EX2051
IPR2025-01603

Wayne Wolf, "Object-oriented co-synthesis of distributed embedded systems," *ACM Transactions on Design Automation of Electronic Systems,* 1(3), July, 1996.

Steve C.-Y. Huang and Wayne Wolf, "Unifiable scheduling and allocation for minimizing system cycle time," *IEEE Transactions on VLSI Systems,* 5(2), June, 1997, pp. 197-210.

Wayne Wolf, "An architectural co-synthesis algorithm for distributed, embedded computing systems," *IEEE Transactions on VLSI Systems,* 5(2), June, 1997, pp. 218-229.

Wayne Wolf, "Redundancy removal during high-level synthesis using scheduling don't-cares," *Journal of Electronic Testing: Theory and Applications,* 11(3), December, 1997, pp. 211-226.

Santanu Dutta, Wayne Wolf, and Andrew Wolfe, "A methodology to evaluate memory architecture design tradeoffs for video signal processors," *IEEE Transactions on Circuits and Systems for Video Technology,* 8(1), February, 1998, pp. 36-53.

Ti-Yen Yen, Alex Ishii, Al Casavant, and Wayne Wolf, "Efficient algorithms for interface timing verification," *Journal of Formal Methods,* 12(3), April, 1998, pp. 241-265.

J. Hou and W. Wolf, "Presynthesis partitioning for hardware-software cosynthesis," *IEE Proceedings—Computers and Digital Techniques,* 145(3), May, 1998.

Santanu Dutta, Kevin J. O'Connor, Wayne Wolf, and Andrew Wolfe, "A design study of a 0.25 μm video signal processor," *IEEE Transactions on Circuits and Systems for Video Technology,* 8(4), August, 1998, pp. 501-519.

Michael Philips and Wayne Wolf, "A multi-attribute shot segmentation algorithm for video programs," *Telecommunication Systems,* 9, 1998, pp. 393-402.

Ti-Yen Yen and Wayne Wolf, "Performance estimation for real-time distributed embedded systems," *IEEE Transactions on Parallel and Distributed Systems,* 9(11), November 1998, pp. 1125-1136.

Santanu Dutta and Wayne Wolf, "A circuit-driven design methodology for video signal-processing datapath elements," *IEEE Transactions on VLSI Systems,* 7(2), June 1999, pp. 229-240.

Chunho Lee, Miodrag Potkonjak and Wayne Wolf, "Synthesis of hard real-time application specific systems," *Design Automation for Embedded Systems,* 4(4), 1999, pp. 215-242.

Miodrag Potkonjak and Wayne Wolf, "Cost optimization in ASIC implementation of periodic hard-real time systems using behavioral synthesis techniques," *ACM Transactions on Design Automation of Electronic Systems,* 4(4), October 1999, pp. 430-459.

Hong-Heather Yu and Wayne Wolf, "A hierarchical multi-resolution video shot transition detection scheme," *Computer Vision and Image Understanding,* 75(1/2), July/August 1999, pp. 196-213.

Yanbing Li and Wayne Wolf, "Hardware/software cosynthesis with memory hierarchies," *IEEE Transactions on CAD,* 18(10), October 1999, pp. 1405-1417.

Haris Lekatsas and Wayne Wolf, "SAMC: a code compression algorithm for embedded processors," *IEEE Transactions on CAD,* 18(12), December 1999, pp. 1689-1701.

Wayne Wolf and Jan Madsen, "Embedded systems education for the future," *Proceedings of the IEEE,* 88(1), January 2000, pp. 23-30.

Michael Kozuch, Wayne Wolf, and Andrew Wolfe, "An experimental analysis of digital video library servers," *Multimedia Systems,* 8(2), 2000, pp. 135-145.

David Rhodes and Wayne Wolf, "Two co-NP complete schedule analysis problems," *International Journal of Foundations of Computer Science,* 12(5), 2001, pp. 565-580.

David L. Rhodes and Wayne Wolf, "RAGS: real-analysis, ALAP guided synthesis," *IEEE Transactions on CAD,* 20(8), August 2001, pp. 931-941.

Heather Yu, Xiangyang Kong, and Wayne Wolf, "Techniques for content-based graph authentication," *IEEE Multimedia,* 8(4), October-December 2001, pp. 38-45.

I. Burak Ozer and Wayne Wolf, "A hierarchical human detection system in (un)compressed domains," *IEEE Transactions on Multimedia,* 4(2), June 2002, pp. 283-300.

Wayne Wolf, Burak Ozer, and Tiehan Lv, "Smart cameras as embedded systems," *IEEE Computer,* 35(9) September 2002, pp. 48-53.

G. Chen, M. Kandemir, V. Narayanan, M. J. Irwin, and W. Wolf, "Using memory compression for energy reduction in an embedded Java system," *Journal of Circuits, Systems, and Computers,* 11(5), October 2002, pp. 537-556.

Brain Corporation EX2051
IPR2025-01603

Wayne Wolf, "Introduction to the inaugural issue," *ACM Transactions on Embedded Computing Systems,* 1(1), November 2002, p. 1.

I. Burak Ozer, Wayne Wolf, and Ali N. Akansu, "A graph-based object description for information retrieval in digital image and video libraries," *Journal of Visual Communication and Image Representation*, 13(4), December 2002, pp. 425-459.

Wayne Wolf and Mahmut Kandemir, "Memory system optimization of embedded software," *Proceedings of the IEEE*, 91(1), January 2003, pp. 165-182.

Wayne Wolf, "A decade of hardware/software codesign," *IEEE Computer*, 36(4), April 2003, pp. 38-43.

Yuan Xie, Jiang Xu, and Wayne Wolf, "Augmenting platform-based design with synthesis tools," *Journal of Circuits, Systems, and Computers*, 12(2), 2003, pp. 1-18.

Tiehan Lv, Joerg Henkel. Haris Lekatsas, and Wayne Wolf, "A dictionary-based en/decoding scheme for low-power data busses," *IEEE Transactions on VLSI Systems*, 11(5), October 2003, pp. 943-951.

Nourridene Chabini and Wayne Wolf, "Reducing dynamic power consumption in synchronous sequential digital designs using retiming and supply voltage scaling," *IEEE Transactions on VLSI Systems*, 12(6), June 2004, pp. 573-589.

Tiehan Lv, Jiang Xu, Wayne Wolf, I. Burak Ozer, Joerg Henkel, and Srimat T. Chakradhar, "A methodology for architectural design of multimedia multiprocessor SoCs," in *IEEE Design & Test of Computers*, 22(1), January-February 2005, pp. 18-26.

I. Burak Ozer, Tiehan Lu, and Wayne Wolf, "Design of a real-time gesture recognition system," *IEEE Signal Processing Magazine*, 22(3), May 2005, pp. 57-64.

Haris Lekatsas, Joerg Henkel, and Wayne Wolf, "Approximate arithmetic coding for bus transition reduction in low power designs," *IEEE Transactions on VLSI Systems*, 13(6), June 2005, pp. 696-707.

Shengqi Yang, Wayne Wolf and Narayanan Vijaykrishnan, "Power and performance analysis of motion estimation based on hardware and software realizations," *IEEE Transactions on Computers*, 54(6), June 2005, pp. 714-726.

Chia-Han Lee and Wayne Wolf, "Implementation-efficient reliability ratio based weighted bit-flipping decoding for LDPC codes," *Electronics Letters*, 41(13), 23 June 2005, pp. 755-757.

Chabini, N.; Wolf, W., "Unification of scheduling, binding, and retiming to reduce power consumption under timings and resources constraints," *Very Large Scale Integration (VLSI) Systems, IEEE Transactions on* , vol.13, no.10, pp.1113,1126, Oct. 2005

Jooheung Lee, N. Vijaykrishnan, Mary Jane Irwin, and Wayne Wolf, "An efficient architecture for motion estimation and compensation in the transform domain," *IEEE Transactions on Circuits and Systems for Video Technology*, 16(2), February 2006.

Yuan Xie, Wayne Wolf, and Haris Lekatsas, "Code compression for embedded VLIW processors using variable-to-fixed coding," *IEEE Transactions on VLSI Systems*, 14(5), May 2006, pp. 525-536.

Jiang Xu, Wayne Wolf, Joerg Henkel, and Srimat Chakradhar, "A design methodology for application-specific networks-on-chip," *ACM Transactions on Embedded Computing Systems*, 5(2), May 2006, pp. 263-280.

Chia-Han Lee and Wayne Wolf, "Architectures and platforms of software (defined) radio systems," *International Journal of Computers and Their Applications*, 13(3), September 2006, pp. 106-117.

Yuan Xie, Wayne Wolf, and Haris Lekatsas, "Code decompression unit design for VLIW embedded processors," *IEEE Transactions on VLSI Systems*, 15(8), August 2007, pp. 975-980.

Changhong Lin, Yuan Xie, and Wayne Wolf, "Code compression for VLIW embedded systems using a self-generating table," *IEEE Transactions on VLSI Systems*, 15(10), October 2007, pp. 1160-1171.

Senem Velipasalar and Wayne H. Wolf, "Frame-level temporal calibration of video sequences from unsynchronized cameras," *Machine Vision and Applications Journal*, DOI 10.1007/s00138-008-0122-6, January 24, 2008.

Wayne Wolf, Ahmed A. Jerraya, and Grant Martin, "Multiprocessor System-on-Chip (MPSoC) Technology," *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, 27(10), October 2008, pp. 1701-1713.

Brain Corporation EX2051
IPR2025-01603

Senem Veliapasalar, Jason Schlessman, Cheng-Yao Chen, Wayne H. Wolf, and Jaswinder P. Singh, "A scalable clustered camera system for multiple object tracking," *EURASIP Journal on Image and Video Processing*, v. 2008, article ID 542808, 2008.

Senem Velipasalar and Wayne Wolf, "Lessons from a distributed peer-to-peer smart tracker," *Elektrotechnik and Informationstechnik*, 2008, 125/10, 1-7.

Shengqi Yang, Wenping Wang, Tiehan Lu, Wayne Wolf, N. Vijaykrishnan, and Yuan Xie. 2008. Case study of reliability-aware and low-power design. *IEEE Trans. Very Large Scale Integr. Syst.* 16(7), July 2008, PP. 861-873.

Cheng-Yao Chen, Tai-Ming Lin, and Wayne H. Wolf, "A visible/infrared fusion algorithm for distributed smart cameras," *IEEE Journal of Selected Topics in Signal Processing*, 2(4), August 2008, pp. 514-525.

Bernard Rinner and Wayne Wolf, "An introduction to distributed smart cameras," *Proceedings of the IEEE*, 96(10), October 2008, pp. 1565-1575.

S. Saha, S. Puthenpurayil, J. Schlessman, S. S. Bhattacharyya, and W. Wolf, "The signal passing interface and its application to embedded implementation of smart camera applications," *Proceedings of the IEEE*, 96(10), October 2008, pp. 1576-1587.

Jiang Xu, Wayne Wolf, Sei Zhang, "Double-data-rate, wave-pipelined interconnect for asynchronous NoCs," *IEEE Micro*, 29(3), May 2009, pp. 20-30.

S. Saha, V. Kianzad, J.Schlessman, G.Aggarwal, S. S. Bhattacharyya, W.Wolf, and R.Chellappa. An architectural level design methodology for smart camera applications. *International Journal of Embedded Systems*, 4(1):83-97, 2009.

Jason E. Fritts, Frederick W. Steiling, Joseph A. Tucek, and Wayne Wolf, "MediaBench II video: expediting the next generation of video systems research," *Microprocessors and Microsystems*, 33(4), June 2009, pp. 301-318.

Chang Hong Lin, Marilyn Wolf, Xenofon Koutsoukos, Sandeep Neema, and Janos Sztipanovits, "System and software architectures of distributed smart cameras," *ACM Transactions on Embedded Computing Systems*, 9(4), March 2010.

A. Abdallah, E. M. Feron, G. Hellestrand, P. Koopman, and M. Wolf, "Hardware/software codesign of aerospace and automotive systems," *Proceedings of the IEEE*, 98(4), April 2010, pp. 584-602.

Se Hun Kim, Saibal Mukhopodhyay, and Marilyn Wolf, "System-level energy optimization for error-tolerant image compression," *IEEE Embedded System Letters*, 2(3), September 2010, pp. 81-84.

Minki Cho, Jason Schlessman, Hamid Mahmoodi, Marilyn Wolf, and Saibal Mukhopadhyay, "Postsilicon adaptation for low-power SRAM under process variation," *IEEE Design & Test of Computers*, 27(6), November 2010, pp 26-35.

M. Cho, J. Schlessman, W. Wolf, and S. Mukhopadhyay, "Reconfigurable SRAM architecture with spatial voltage scaling for low power mobile multimedia applications," *IEEE Transactions on VLSI Systems*, 19(1), January 2011, pp. 161-165.

Se Hun Kim, Saibal Mukhopadhyay, and Marilyn Wolf "Modeling and analysis of image dependence and its implications for energy savings in error tolerant image processing," *IEEE Transactions on CAD/ICAS*, 30(8), August 2011, pp. 1163-1172.

Chia-Han Lee and Wayne Wolf, "Blind signal separation for cognitive radio," *Journal of Signal Processing Systems*, vol. 63, no. 1, pp. 67-81, Jan. 2011, DOI 10.1007/s11265-009-0400-1.

Noureddine Chabini, Marilyn Wolf, "Reordering the assembly instructions in basic blocks to reduce switching activities on the instruction bus**,"** IET Computers & Digital Techniques 5(5): 386-392 (2011)

Shengqi Yang, Pallav Gupta, Marilyn Wolf, Dimitrios Serpanos, Vijaykrishnan Narayanan, and Yuan Xie, "Power analysis attack resistance engineering by dynamic voltage and frequency scaling," *ACM Transactions on Embedded Computing Systems*, 11(3), September 2012.

Dongwon Lee, Marilyn Wolf, and Shuvra S. Bhattacharyya, "High-performance and low-energy buffer mapping method for multiprocessor DSP systems," *ACM Transactions on Embedded Computing Systems*, 12(3), 2013. Article No. 82.

Marilyn Wolf and Dimitrios Serpanos, "Safety and security of cyber-physical and Internet-of-Things systems," *Proceedings of the IEEE*, 105(6), June 2017, pp. 983-984.

Brain Corporation EX2051
IPR2025-01603

M. U. Tariq, J. Florence and M. Wolf, "Improving the Safety and Security of Wide-Area Cyber–Physical Systems Through a Resource-Aware, Service-Oriented Development Methodology," in *Proceedings of the IEEE*, vol. 106, no. 1, pp. 144-159, Jan. 2018. doi: 10.1109/JPROC.2017.2744645

M. Wolf and D. Serpanos, "Safety and Security in Cyber-Physical Systems and Internet-of-Things Systems," in *Proceedings of the IEEE*, vol. 106, no. 1, pp. 9-20, Jan. 2018. doi: 10.1109/JPROC.2017.2781198

Bo Yuan, Manish Goel, Marilyn Claire Wolf, Sridhar Rajagopal, and Joseph R. Cavallaro, "Introduction to the Special Issue on Signal Processing Systems," *Journal of Signal Processing Systems*, 90, 10 (October 2018), 1383-1385.

Adrian Sapio, Lin Li, Jiahao Wu, Marilyn Wolf, and Shuvra S. Bhattacharyya, "Reconfigurable Digital Channelizer Design Using Factored Markov Decision Processes," *Journal of Signal Processing Systems*, 90, 10 (October 2018), 1329-1343.

B. A. Mudassar, P. Saha, Y. Long, M. F. Amir, E. Gebhardt, T. Na, J. H. Ko, M. Wolf, and S. Mukhopadhyay, "CAMEL: An Adaptive Camera with Embedded Machine Learning Based Sensor Parameter Control," in *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, 9(3), September 2019, pp. 498-508. doi: 10.1109/JETCAS.2019.2935207

Lin Li, Peter Deaville, Adrian Sapio, Lauri Anttila, Mikko Valkama, Marilyn Wolf, Shuvra S. Bhattacharyya, "MADS: A Framework for Design and Implementation of Adaptive Digital Predistortion Systems," *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, 9(4), 2019, pp. 712-722.

Sanjoy Baruah, Peter Lee, Prakash Sarathy, and Marilyn Wolf, "Achieving Resiliency and Behavior Assurance in Autonomous Navigation: An Industry Perspective," *Proceedings of the IEEE*, 108(7), July 2020, pp. 1196-1207.

K. Samal, M. Wolf and S. Mukhopadhyay, "Attention-Based Activation Pruning to Reduce Data Movement in Real-Time AI: A Case-Study on Local Motion Planning in Autonomous Vehicles," in IEEE Journal on Emerging and Selected Topics in Circuits and Systems, vol. 10, no. 3, pp. 306-319, Sept. 2020, doi: 10.1109/JETCAS.2020.3015889.

Jörg Henkel, Hussam Amrouch, and Marilyn Wolf. 2020. Introduction to the Special Issue on Machine Learning for CAD. *ACM Trans. Des. Autom. Electron. Syst.* 25, 5, Article 36 (October 2020), 2 pages. DOI:https://doi-org.libproxy.unl.edu/10.1145/3410864

Adrian Sapio, Shuvra S. Bhattacharyya, and Marilyn Wolf. 2020. Runtime Adaptation in Wireless Sensor Nodes Using Structured Learning. *ACM Trans. Cyber-Phys. Syst*. 4, 4, Article 40 (August 2020), 28 pages.

K. Samal, H. Kumawat, P. Saha, M. Wolf and S. Mukhopadhyay, "Task-Driven RGB-Lidar Fusion for Object Tracking in Resource-Efficient Autonomous System," in IEEE Transactions on Intelligent Vehicles, vol. 7, no. 1, pp. 102-112, March 2022, doi: 10.1109/TIV.2021.3087664.

M. Rapp, H. Amrouch, Y. Lin, B. Yu, D. Z. Pan, M. Wolf, and J. Henkel, "MLCAD: A Survey of Research in Machine Learning for CAD Keynote Paper," in *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, vol. 41, no. 10, pp. 3162-3181, Oct. 2022, doi: 10.1109/TCAD.2021.3124762.

Kruttidipta Samal, Thomas Walton, Dung Hoang Tran, Marilyn Wolf, "A Markovian Error Model for False Negatives in DNN-based Perception-Driven Control Systems," *Procedia Computer Science*, Volume 222, 2023, Pages 549-560, ISSN 1877-0509.

Conference and Magazine Articles

Wayne Wolf, John Newkirk, Robert Mathews, and Robert Dutton, "Dumbo, A Schematic-to-Layout Compiler", in Randall E. Bryant, ed., *Proceedings, Third Caltech Conference on VLSI*, Computer Science Press, 1983, pp. 379-394.

Wayne Wolf, Robert Mathews, John Newkirk, and Robert Dutton, "Two Dimensional Compaction Strategies," in *Proceedings, ICCAD-83*, ACM/IEEE, 1983, pp. 90-91.

Wayne Wolf, "An Experimental Comparison of 1-D Compaction Algorithms," in Henry Fuchs, ed., *Proceedings, Chapel Hill Conference on VLSI*, Computer Science Press, 1985, pp.165-180.

Wayne Wolf, "An Object-Oriented, Procedural Database for VLSI Chip Planning," in *Proceedings, 23rd Design Automation Conference*, ACM/IEEE, 1986, pp. 744-751.

T. J. Kowalski, D. J. Geiger, W. H. Wolf, and W. Fichtner, "The VLSI Design Automation Assistant: A Birth in Industry," in *Proceedings, International Symposium on Circuits and Systems*, IECE (Japan)/IEEE Circuits and Systems Society, 1985, pp. 889-892.

Mark Reichelt and Wayne Wolf, "An Improved Cell Model for Hierarchical Constraint-Graph Compaction," in *Proceedings, ICCAD-86*, ACM/IEEE, 1986, pp. 482-485.

W. H. Wolf, T. J. Kowalski, and M. C. McFarland, S. J., "Knowledge Engineering Issues in VLSI Synthesis, in *Proceedings, AAAI-86*, American Association for Artificial Intelligence, 1986, pp. 866-871.

Wayne Wolf, "Better Controllers Through Object-Oriented Hardware Design," in *Proceedings, ICCD-87*, IEEE Computer Society Press, 1987, pp. 22-26.

Wayne Wolf, "Mix-and-Match Prototyping Using Objects," in G. Saucier, E. Read, J. Trilhe, eds., *Fast-Prototyping of VLSI*, Elsevier Science Publishers B. V., 1987, pp. 117-126.

Wayne Wolf, Kurt Keutzer, and Janaki Akella, "A kernel-finding state assignment algorithm for multi-level logic," in *Proceedings, 25th Design Automation Conference*, ACM/IEEE, 1988.

Kurt Keutzer and Wayne Wolf, "Anatomy of a hardware compiler," in *Proceedings, SIGPLAN Conference on Compiler Construction*, Association for Computing Machinery, 1988, pp. 95-104.

Michael Lightner and Wayne Wolf, "Experiments in logic optimization," in *Proceedings, ICCAD-88*, ACM/IEEE, 1988, pp. 286-289.

Wayne Wolf, "How we used the Oct Tools and Magic to build interesting VLSI projects," in *Proceedings, VLSI Education Conference*, 1989, pp. 89-96.

Wayne Bower, Carl Seaquist, and Wayne Wolf, "A framework for industrial layout generators," in *Proceedings, 27th Design Automation Conference*, IEEE Computer Society Press, 1990, pp. 419-424.

Wayne Wolf, "The FSM network model for behavioral synthesis of control-dominated machines," in *Proceedings, 27th Design Automation Conference*, ACM Press, 1990, pp. 692-697.

R. J. Lipton, D. N. Serpanos, and W. H. Wolf, "PDL++: an optimizing generator language for register-transfer design," in *Proceedings, ISCAS-90*, IEEE Circuits and Systems Society, May, 1990, pp. 1135-1138.

Wayne Wolf, "An algorithm for nearly-minimal collapsing of finite-state machine networks," in *Proceedings, ICCAD-90*, IEEE Computer Society Press, 1990, pp. 80-83.

Wayne Wolf, "Finite-state models and methods for high-level synthesis," in *Proceedings, SBMICRO-91*, Brazilian Microelectronics Society, 1991.

Wayne Wolf, "Automata-theoretic aids to scheduling," in Robert W. Dutton, ed., *VLSI Logic Synthesis and Design*, IOS Press, Amsterdam, 1991.

Wayne Wolf, "Expert opinion: In search of simpler software integration," *IEEE Spectrum*, Janaury, 1992, p. 31.

Wayne Wolf, Andres Takach, Chun-Yao Huang, Richard Manno, and Ephrem Wu, "The Princeton University Behavioral Synthesis System," *Proceedings, 29th Design Automation Conference*, IEEE Computer Society Press, 1992.

Andres R. Takach and Wayne Wolf, "Modular Scheduling Constraint Specification," in *Proceedings, ISCAS '92*, IEEE Circuits and Systems Society, 1992.

Tien-Chien Lee, Wayne H. Wolf, Niraj K. Jha, and John M. Acken, "Behavioral synthesis for easy testability in data path allocation," *Proceedings, ICCD-92*, IEEE Computer Society Press, 1992, pp. 29-32.

James Aylor, Raul Camposano, Michael Schuette, Wayne Wolf, and Nam Woo,"The future of embedded system design," *Proceedings, ICCD-92*, IEEE Computer Society Press, 1992, pp. 144-146.

Ernest Frey and Wayne Wolf, "Tutorial on embedded system design," *Proceedings, ICCD-92*, IEEE Computer Society Press, 1992, pp. 18-21.

Tien-Chien Lee, Wayne H. Wolf, and Niraj K. Jha, "Behavioral synthesis for easy testability in data path scheduling," *Proceedings, ICCAD-92*, IEEE Computer Society Press, 1992, pp. 616-619.

Steve C.-Y. Huang and Wayne H. Wolf, "Timing-oriented state assignment for controller-datapath systems," in G. Saucier and J. Trilhe, eds., *Synthesis for Control Dominated Circuits*, North-Holland, 1993, pp. 19-32.

Brain Corporation EX2051
IPR2025-01603

Steve C.-Y. Huang and Wayne H. Wolf, "Resynthesis for cycle time in controller-datapath systems," in *Proceedings, CICC '93*, IEEE Press, 1993, paper 5.1.

Ronald Waxman, Gaetano Borriello, Klaus Buchenrieder, Raul Camposano, Edward A. Lee, Wayne Wolf, "A D&T Roundtable: Hardware/Software Codesign," *IEEE Design & Test*, March, 1993, pp. 83-91.

Tien-Chien Lee, Niraj K. Jha, and Wayne H. Wolf, "Behavioral synthesis of highly-testable datapaths under the non scan and partial scan environments," in *Proceedings, 30th Design Automation Conference*, ACM Press, 1993, pp. 292-297.

Tien-Chien Lee, Niraj K. Jha, and Wayne H. Wolf, "A conditional resource sharing method for behavioral synthesis of highly testable data paths," in *Proceedings, 1993 International Test Conference*, IEEE Computer Society Press, 1993.

Ti-Yen Yen and Wayne Wolf, "Optimal scheduling of finite-state machines," in *Proceedings, ICCD '93*, IEEE Computer Society Press, 1993.

D. C. Dodd, S. R. Kulkarni, and W. H. Wolf, "An automated video-based classification system," in *Proceedings, IEEE Regional Control Conference*, 1993.

Wayne Wolf, "Guest editor's introduction, hardware-software codesign," *IEEE Design & Test*, 10(3), September, 1993, p. 8.

Steve C.-Y. Huang and Wayne H. Wolf, "Scheduling for minimum dependence in FSMs," in *Proceedings, ICCAD '93*, IEEE Computer Society Press, 1993.

Steve C.-Y. Huang and Wayne Wolf, "How datapath allocation affects controller delay," in *Proceedings, 1994 International Symposium on High-Level Synthesis*, IEEE Computer Society Press, 1994.

Santanu Dutta and Wayne Wolf, "Architectural limits in video signal processor design," in *Proceedings, ICCD '94*, IEEE Computer Society Press, 1994.

Ti-Yen Yen, Alex Ishii, Al Casavant, and Wayne Wolf, "Efficient algorithms for interface timing verification," in *Proceedings, EuroDAC-94*, IEEE Computer Society Press, 1994, pp. 34-39.

Wayne Wolf, Andrew Wolfe, Steve Chinatti, Ravi Koshy, Gary Slater, and Spencer Sun, "TigerSwitch: A Case Study in Embedded Computing System Design," in *Proceedings, 1994 International Workshop on Hardware-Software Co-Design*, IEEE Computer Society Press, 1994, pp. 89-96.

Bede Liu, Wayne Wolf, Sanjeev Kulkarni, Andrew Wolfe, Hisashi Kobayashi, Fred Greenstein, Ira Fuchs, Arding Hsu, Farshid Arman, and Yiqing Liang, "The Princeton Video Library of Politics," in *Proceedings, Digital Libraries '94*, Texas A&M University, 1994, pp. 215-216.

Wayne Wolf, "Guest editor's introduction," *Journal of Computer and System Engineering*, Fall, 1994, p. 237.

Minerva Yeung, Boon-Lock Yeo, Wayne Wolf, and Bede Liu, "Video browsing using clustering and scene transitions on compressed sequences," in 1995 *SPIE Conference on Multimedia Computing and Networking*, SPIE, 1995, pp. 399-413.

Boon-Lock Yeo, Minerva Yeung, Wayne Wolf, and Bede Liu, "Theft-resistant video browsing using filtered versions of compressed sequences," in *Proceedings, IEEE International Conference on Multimedia Systems and Architectures*, IEEE Computer Society Press, 1995, pp. 50-55.

Wayne Wolf, Bede Liu, Andrew Wolfe, Minerva Yeung, Boon-Lock Yeo, and Daniel Markham, "Video as scholarly material in the digital library," Chapter 1 in *Advances in Digital Libraries '95*, Springer-Verlag, 1995.

Wayne Wolf, "On the road to symmetric multimedia services," in *Proceedings, CIC Forum*, 1995.

Santanu Dutta and Wayne Wolf, "Processing element architectures for programmable video signal processors," in *VLSI Signal Processing VIII*, IEEE Press, 1995, pp. 401-410.

Heather Yu and Wayne Wolf, "Content-oriented search algorithms for digital video libraries," in *Proceedings, Conference on Digital Image Storage and Archiving Systems*, SPIE, vol. 2606, 1995, pp. 363-371.

Mike Kozuch, Andrew Wolfe, and Wayne Wolf, "Architectures for non-linear video servers," in *Proceedings, Integration Issues in Large Commercial Storage Systems*, SPIE, 1995.

Wayne Wolf, Bede Liu, Andrew Wolfe, Margaret Martonosi, and Yiqing Liang, "A digital video library for classroom use," in *Proceedings, International Conference on Digital Libraries*, 1995.

Brain Corporation EX2051
IPR2025-01603

Wayne Wolf, "Object-oriented co-synthesis of distributed embedded systems," in *Proceedings, CHDL '95*, IFIP, 1995, pp. 553-558.

Ti-Yen Yen and Wayne Wolf, "Performance estimation for distributed embedded systems," in *Proceedings, ICCD '95*, IEEE Computer Society Press, 1995, pp. 64-69.

Santanu Dutta, Wayne Wolf, and Andrew Wolfe, "VLSI issues in memory-system design for programmable video signal processors," in *Proceedings, ICCD '95*, IEEE Computer Society Press, 1995, p. 498-503.

Ti-Yen Yen and Wayne Wolf, "Sensitivity-driven co-synthesis of distributed embedded systems," in *Proceedings, International Symposium on System Synthesis*, IEEE Computer Society Press, 1995, pp. 4-9.

Ti-Yen Yen and Wayne Wolf, "Communication synthesis for distributed embedded systems," in *Proceedings, ICCAD-95*, IEEE Computer Society Press, 1995, pp. 288-294.

Miodrag Potkonjak and Wayne Wolf, "Cost optimization in ASIC implementation of periodic hard-real time systems using behavioral synthesis techniques," in *Proceedings, ICCAD-95*, IEEE Computer Society Press, 1995, pp. 446-451.

Paul Lippens, Vijay Nagasamy, and Wayne Wolf, "CAD challenges in multimedia computing," in *Proceedings, ICCAD-95*, IEEE Computer Society Press, 1995, pp. 502-508.

Junwei Hou and Wayne Wolf, "Partitioning methods for hardware-software co-design," in *Proceedings, Fourth International Workshop on Hardware/Software Codesign*, IEEE Computer Society Press, 1996, pp. 70-76.

Wayne Wolf, "Key frame selection by motion analysis," in *Proceedings, ICASSP '96*, IEEE Press, 1996, pp. 1240-1243.

Shantanu Ganguly, T. M. Mak, Wayne Wolf, Ken Yeager, and Lou Scheffer, "D & T Roundtable: Deep-Submicron Design," *IEEE Design & Test of Computers*, 13(2), Summer, 1996, pp. 83-89.

Miodrag Potkonjak and Wayne Wolf, "Heuristic techniques for synthesis of hard real-time DSP application specific systems," in *Proceedings, ICASSP '96*, IEEE Press, 1996, pp. 1228-1231.

Mike Kozuch, Wayne Wolf, and Andrew Wolfe, "Video server architectures for non-linear video," in *Proceedings, ICCD '96*, IEEE Computer Society Press, 1996, pp. 145-146.

Santanu Dutta, Andrew Wolfe, Wayne Wolf, and Kevin O'Connor, "Design issues for very-long-instruction-word VLSI video signal processors," in *VLSI Signal Processing IX*, IEEE Press, 1996, pp. 95-104.

Chunho Lee, Miodrag Potkojnak, and Wayne Wolf, "System-level synthesis of hard real-time application-specific systems," in *Proceedings, International Symposium on System Synthesis*, IEEE Computer Society Press, 1996, pp. 2-7.

Wayne Wolf, Yiqing Liang, Michael Kozuch, Heather Yu, Michael Phillips, Marcel Weekes, and Andrew Debruyne, "A digital video library on the World Wide Web," in *Proceedings, ACM Multimedia '96*, ACM Press, 1996, pp. 433-434.

Michael Philips and Wayne Wolf, "Video segmentation techniques for news," in *Multimedia Storage and Archiving Systems*, SPIE, vol. 2916, 1996, pp. 243-251.

Andrew Wolfe, and Wayne Wolf, Santanu Dutta, and Jason Fritts, "Design methodology for programmable video signal processors," in *Multimedia Hardware Architectures 1997*, SPIE, 1997.

Yanbing Li, Bo Tao, Shun Kei, and Wayne Wolf, "Semantic image retrieval through human subject segmentation and characterization," in *Storage and Retrieval for Image and Video Databases V*, SPIE, vol. 3022, 1997, pp. 340-351.

Yanbing Li and Wayne Wolf, "Scheduling and allocation of multi-rate real-time embedded systems," in *Proceedings, ED&TC '97*, IEEE Computer Society Press, 1997, pp. 134-139.

Wayne Wolf, "Hidden Markov Model parsing of video programs," in *Proceedings, ICASSP-97*, IEEE Press, 1997, pp. 2609-11.

Yanbing Li and Wayne Wolf, "A task-level hierarchical memory model for system synthesis of multiprocessors," in Proceedings, *34th Design Automation Conference*, ACM Press, 1997, pp. 153-156.

Hong-Heather Yu and Wayne Wolf, "A visual search system for video and image databases," in *Proceedings, ICMCS '97*, IEEE Computer Society Press, 1997, pp. 517-524.

Brain Corporation EX2051
IPR2025-01603

Michael Kozuch, Wayne Wolf, Andrew Wolfe, and Don McKay, "Branch libraries for multimedia repositories," in *Proceedings, ACM Digital Libraries '97*, ACM Press, 1997, pp. 261-262.

Wayne Wolf, "Hardware/software co-design for multimedia," in *Advanced Signal Processing: Algorithms, Architectures, and Implementations VII*, SPIE, vol. 3102, 1997, pp. 510-517.

Yanbing Li and Wayne Wolf, "Scheduling and allocation of single-chip multiprocessors for multimedia," in *Proceedings, SiSP '97*, IEEE Press, 1997.

Michael Kozuch, Wayne Wolf, and Andrew Wolfe, "An approach to network caching for multimedia objects," in *Proceedings, ICCD '97*, IEEE Computer Society Press, 1997.

David L. Rhodes and Wayne Wolf, "Allocation and data arrival design of hard real-time systems," in *Proceedings, ICCD '97*, IEEE Computer Society Press, 1997.

Yanbing Li, Miodrag Potkonjak, and Wayne Wolf, "Real-time operating systems for embedded computing," in *Proceedings, ICCD '97*, IEEE Computer Society Press, 1997.

Hong-Heather Yu and Wayne Wolf, "Hierarchical, multi-resolution algorithms for dictionary-driven content based image retrieval," in *Proceedings, ICIP '97*, IEEE, 1997.

Wayne Wolf, "Writing Web documents about films," in Ralph H. Sprague, ed., *Proceedings, 31st Annual HICSS*, vol. II, IEEE Computer Society Press, 1998, pp. 254-258.

Wayne Wolf, "VLIW Architectures for Video Signal Processing," *Multimedia Hardware Architectures 1998*, SPIE, vol. 3311, 1998, pp. 52-57.

Zhao Wu and Wayne Wolf, "Memory system architectures for single-chip VLSI VSPs," *Multimedia Hardware Architectures 1998*, SPIE, vol. 3311, 1998, pp. 58-66.

Heather Yu and Wayne Wolf, "Spectral methods for dissolve detection," in *Storage and Retrieval for Image and Video Databases* VI, SPIE, vol. 3312, 1998, pp. 176-187.

R. P. Dick, D. L. Rhodes, and W. Wolf, "TGFF: task graphs for free," in *Proceedings, 6th International Workshop on Hardware/Software Codesign*, IEEE Computer Society Press, 1998, pp. 97-101.

Min Yu, Wayne Wolf, and Bede Liu, "An algorithm for wipe detection," in *Proceedings, ICIP '98*, IEEE, 1998.

Zhao Wu and Wayne Wolf, "Trace-driven studies of VLIW video signal processors, in *Proceedings, ACM Annual International Symposium on Parallel Algorithms and Architectures*, ACM, 1998, pp. 289-297.

Haris Lekatsas and Wayne Wolf, "Code compression for embedded systems," in *Proceedings, 1998 Design Automation Conference*, ACM, 1998, pp. 516-521.

Zhao Wu and Wayne Wolf, "Study of cache system in video signal processors," in *Proceedings, IEEE Workshop on Signal Processing Systems*, IEEE, 1998.

Zhao Wu and Wayne Wolf, "Design study of shared memory in VLIW video signal processors," *IEEE International Conference on Parallel Architectures and Compilation Techniques*, IEEE Computer Society Press, 1998.

Dimitrios N. Serpanos and Wayne H. Wolf, "Caching Web documents using Zipf's Law," in *Multimedia Storage and Archiving Systems III*, SPIE, vol. 3527, 1998, p. 320-326.

Yanbing Li and Wayne Wolf, "Hardware/software co-synthesis with memory hierarchies," in *Proceedings, ICCAD-98*, IEEE Computer Society Press, 1998.

Zhao Wu and Wayne Wolf, "Data-path synthesis of VLIW video signal processors," in *Proceedings, IEEE International Symposium on System Synthesis*, IEEE Computer Society Press, 1998.

Jason Fritts and Wayne Wolf, "Understanding multimedia application characteristics for designing programmable media processors," in *Multimedia Hardware Architectures 1999*, SPIE, 1999.

Haris Lekatsas and Wayne Wolf, "Random access decompression using binary arithmetic coding," in *Proceedings of the IEEE Data Compression Conference*, IEEE, 1999, pp. 306-315.

Zhao Wu and Wayne Wolf, "Iterative cache simulation of embedded CPUs with trace stripping," in Proceedings, *7th International Workshp on Hardware/Software Codesign*, IEEE Computer Society Press, 1999.

David Rhodes and Wayne Wolf, "Overhead effects in embedded real-time systems," in Proceedings, *7th International Workshop on Hardware/Software Codesign*, IEEE Computer Society Press, 1999.

Brain Corporation EX2051
IPR2025-01603

Burak Ozer, Wayne Wolf, and Ali N. Akansu, "A graph based object description for information retrieval in digital image and video libraries," in *Proceedings CBAIVL '99*, IEEE, 1999.

Jason Fritts, Zhao Wu, and Wayne Wolf, "Parallel media processors for the billion-transistor era," in *Proceedings, ICPP '99*.

Wayne Wolf, "CAD techniques for embedded systems-on-silicon," in *Proceedings, ICCD '99*, IEEE Computer Society Press, 1999, pp. 24-29.

Jason Fritts and Wayne Wolf, "Parallel media processors: achieving performance with data parallelism," *Electronic Imaging*, November 1999, p. 6.

David L. Rhodes and Wayne Wolf, "Co-synthesis of heterogeneous multiprocessor systems using arbitrated communication," *Proceedings, ICCAD '99*, ACM Press, 1999, pp. 339-342.

D. L. Rhodes and W. Wolf, "Unbalanced cache systems," in *Records of the IEEE International Workshop on Memory Technology, Design and Testing*, IEEE, 1999, pp. 16-23.

Yuan Xie and Wayne Wolf, "Hardware/software co-synthesis with custom ASICs," in *Proceedings, ASPDAC '00*, IEEE, 2000, pp. 129-133.

Andrea La Paugh and Wayne Wolf, "DTV-based networking," in *Proceedings, International Conference on Telecommunications, Vanderbilt University, 2000.*

Yuan Xie, Hua Lin, Zhao Wu, and Wayne Wolf, "CAD techniques for multimedia system design," in Proceedings, SASIMI 2000, SASIMI Workshop, 2000, pp. 81-87.

Wayne Wolf, "Alternative architectures for video signal processing," *IEEE Computer Society Workshop on VLSI 2000*, IEEE Computer Society Press, 2000, pp. 5-8.

Haris Lekatsas, Joerg Henkel, and Wayne Wolf, "Code compression for low power," in *Proceedings, ACM Data Compression Conference*, ACM, 2000.

Haris Lekatsas, Joerg Henkel, and Wayne Wolf, "Low-power techniques for code compression in embedded systems," in *Proceedings, DAC 2000*, ACM Press, 2000.

A. Aydin Alatan, Ali N. Akansu, and Wayne Wolf, "Comparative analysis of hidden Markov models for multi-modal dialogue scene indexing," in *Proceedings, ICASSP '00*, IEEE, 2000.

Hua Lin and Wayne Wolf, "Co-design of interleaved memory systems," in *Proceedings, CODES '00*, IEEE Computer Society Press, 2000.

Wayne Wolf, "What and why about architecture for embedded systems," in *Proceedings, ISCA Workshop on Computer Architecture Education*, IEEE, 2000.

D. N. Serpanos, G. Karakostas, and W. H. Wolf, "Effective Caching of Web Objects using Zipf's Law," in *Proceedings, ICME 2000*, IEEE, 2000.

Jason Fritts and Wayne Wolf, "Multi-Level Cache Hierarchy Evaluation for Programmable Media Processors," in *Proceedings, SiPS 2000*, IEEE, 2000.

Burak Ozer, Wayne Wolf, and Ali Akansu, "Human activity detection in MPEG sequences," in *Proceedings, Workshop on Human Motion*, 2000, IEEE, 2000.

Jason Fritts and Wayne Wolf, "Evaluation of static and dynamic scheduling for media processors," in *Proceedings, MICRO-33 MP-DSP2 Workshop*, ACM, December 2000.

Wayne Wolf, "VLSI distributed architectures for smart cameras," in *Media Processors 2001*, Proceedings of SPIE Vol. 4313, SPIE, 2001.

Wayne Wolf, Reinaldo Bergamaschi, Ivo Bolshens, Rajesh Gupta, Randolph Harr, Ahmed Jerraya, Kurt Keutzer, Kunle Olukotun, and Kees Vissers, "D&T Roundtable: Are Single-Chip Multiprocessors In Reach," *IEEE Design & Test of Computers*, 18(1), January/February 2001, pp. 82-89.

Wayne Wolf, "Rethinking embedded microprocessor education," in *Proceedings, ASEE '01*, ASEE, 2001.

Wayne Wolf, "What every embedded system designer should know," in *Proceedings, Embedded Systems Conference*, Miller Freeman, April 2001.

Yuan Xie, Wayne Wolf, and Haris Lekatsas, "Compression ratio and decompression overhead tradeoffs in code compression for VLIW architectures," in *Proceedings, ASICON 2001*, 2001, pp. 337-340.

Yuan Xie and Wayne Wolf, "ASICosyn: co-synthesis of conditional task graphs with custom ASICs," in *Proceedings, ASICON 2001*, 2001, pp. 130-135.

Brain Corporation EX2051
IPR2025-01603

Yuan Xie and Wayne Wolf, "Allocation and scheduling of conditional task graph in hardware/software co-synthesis," in *Proceedings, DATE-01*, IEEE Computer Society Press, 2001, pp. 620-625.

Yuan Xie, Haris Lekatsas, and Wayne Wolf, "Code compression for VLIW processors," in *Proceedings, ACM Data Compression Conference*, ACM, 2001.

Burak Ozer and Wayne Wolf, "Human Detection in Compressed Domain," in *Proceedings, ICIP 2001*, IEEE, 2001.

Burak Ozer and Wayne Wolf, "Video analysis for smart rooms," in *Internet Multimedia Management Systems*, SPIE, 2001.

Wayne Wolf, "Partial-frame transition detection," in *Proceedings, ICME 2001*, IEEE Computer Society Press, 2001.

Haris Lekatsas, Joerg Henkel, and Wayne Wolf, "Design and simulation of a pipelined decompression architecture for embedded systems," in *Proceedings, ISSS 2001*, IEEE Computer Society Press, 2001.

Burak Ozer and Wayne Wolf, "A smart camera for real-time human activity recognition," in Proceedings, SIPS-01, IEEE, 2001.

Wayne Wolf and Ahmed A. Jerraya, "Guest editors' introduction: application-specific system-on-chip multiprocessors," IEEE Design & Test, 18(5), September/October 2001, p. 7.

Kai Richter, Rolf Ernst, and Wayne Wolf, "Hierarchical specification methods for platform-based design," in *Proceedings, SASIMI 2001*, 2001

Wayne Wolf, "Embedded software for video," in Thomas A. Henzinger and Christoph M. Kirsch, eds., *Proceedings, EMSOFT 2001*, LNCS 2211, Heidelberg: Springer Verlag, 2001, pp. 493-502.

Walter Wang, Libin Dong, and Wayne Wolf, "Load-balancing algorithm and queueing structure for terabit switch fabrics with parallel switch elements," in *Proceedings, Communication Design Conference 2001*, San Jose, October 2001. Also appeared in *Communication System Design*, September 2001.

Tiehan Lv, Burak Ozer, and Wayne Wolf, "Workload characterization for smart cameras," in *Proceedings, 3rd Workshop on Media and Streaming Processors*, IEEE, 2001.

Yuan Xie, Wayne Wolf, and Haris Lekatsas, "Compression ratio and decompression overhead tradeoffs in code compression for VLIW architectures", in *Proceedings, Internatinal Conference on ASIC Design*, 2001.

Eric Collins and Wayne Wolf, "Real-time media processing," in *Proceedings, IEEE Real-Time Embedded Systems Workshop*, IEEE, 2001.

Yuan Xie, Wayne Wolf, and Haris Lekatsas, "A code compression architecture for VLIW processors," in *Proceedings, 34th Annual International Symposium on Microarchitecture*, IEEE Computer Society Press, 2001, pp. 66-75.

Tiehan Lv, Joerg Henkel, Haris Lekatsas, and Wayne Wolf, "An adaptive dictionary encoding scheme for SoC data busses," in *Proceedings, DATE '02*, IEEE, 2002.

Tiehan Lv, Burak Ozer, and Wayne Wolf, "Smart camera system design," in *Proceedings, PV2002*, IEEE, 2002.

Jiang Xu and Wayne Wolf, "Platform-based design and the first-generation dilemma," in *Proceedings, Ninth IEEE/DATC Electronic Design Process Workshop*, IEEE, 2002, paper S3.2.

Tin-Man Lee, Joerg Henkel, and Wayne Wolf, "Dynamic runtime re-scheduling allowing multiple implementations of a task for platform-based designs," in *Proceedings, DATE '02*, IEEE, 2002.

Wayne Wolf, Burak Ozer, Tiehan Lv, "VLSI systems for embedded video," in *Proceedings, IEEE Computer Society Annual Symposium on VLSI*, IEEE, 2002, pp. 3-6.

G. Chen, M. Kandemir, N. Vijaykrishnan, M. J. Irwin, and W. Wolf, "Energy savings through compression in embedded Java environments," in *Proceedings, 10th International Symposium on Hardware/Software Codesign*, IEEE, 2002, pp. 163-168.

W. Wang, Libin Dong, and W. Wolf, "iSKIP: a fair and efficient scheduling algorithm for input-queued crossbar switches," in *GLOBECOM '02*, IEEE, 2002, vol. 3, pp. 2287-2291.

Walter Wang, Libin Dong, and Wayne Wolf, "A distributed switch architecture with dynamic load-balancing and parallel input-queued crossbars for terabit switch fabrics," in *Proceedings, Infocom '02*, IEEE, 2002.

Wayne Wolf, "Embedded computing," *IEEE Computer*, January 2002, pp. 136-137.

Brain Corporation EX2051
IPR2025-01603

Wayne Wolf, “Household hints for embedded systems designers,” *IEEE Computer*, May 2002, pp. 106-108.

Osama Youssef, Amar Aggoun, Wayne H. Wolf, and Malcolm McCormick, “Pixels grouping and shadow cache for faster integral 3D ray tracing,” in *Proc. SPIE 4660, Stereoscopic Displays and Virtual Reality Systems IX*, 123, May 24, 2002.

Burak Ozer, Tiehan Lv, and Wayne Wolf, “A bottom-up approach for activity recognition in smart rooms,” *Proceedings, ICME-02*, IEEE, 2002.

Tiehan Lv, Burak Ozer, Wayne Wolf, "Pipelining architecture for video smart camera systems", in *Proceedings, ICAM'2002 Workshop*, 2002 International Conference on Distributed Multimedia Systems, 2002.

Wayne Wolf, “Wither Warhol’s Law?” , *IEEE Computer*, 35(9) September 2002, pp. 96-97.

Yuan Xie and Wayne Wolf, “Code compression for VLIW using variable-to-fixed coding,*”* in *Proceedings, ISSS 2002*, IEEE, 2002.

Wayne Wolf, Tiehan Lv, and I. Burak Ozer, “An architectural design study for a high-speed smart camera,” in *Proceedings, 4th Workshop on Media and Streaming Processors*, IEEE, 2002.

Jiang Xu and Wayne Wolf, “Wave pipelining for application-specific networks-on-chips,” in *Proceedings, CASES 2002*, ACM Press, 2002, pp. 198-201.

Tiehan Lv, Burak Ozer, Wayne Wolf, "Parallel Architecture for Video Processing in a Smart Camera System", in *Proceedings, IEEE Workshop on Signal Processing Systems*, IEEE, 2002.

I. Burak Ozer and Wayne Wolf, “Real-time posture and activity recognition,” in *Proceedings, IEEE Workshop on Motion and Video Computing*, IEEE Computer Society Press, 2002, pp. 133-138.

Scott Craver, Bede Liu, and Wayne Wolf, “Detectors for echo hiding systems,” in Fabien A. P. Petitcolas, ed., *5th International Workshop on Information Hiding*, Springer, Lecture Notes in Computer Science, vol. 2578, 2003, pp. 247-257.

Tiehan Lv, Joerg Henkel, Haris Lekatsas, and Wayne Wolf, “Enhancing signal integrity through a low-lverhead encoding scheme on address busses,” in *DATE ‘03 Proceedings*, IEEE Computer Society Press, 2003, pp. 542-547.

Yuan Xie, Wayne Wolf, and Haris Lekatsas, “Profile-driven code compression,” in *DATE ‘03 Proceedings*, IEEE Computer Society Press, 2003, pp. 462-467.

Wayne Wolf, “How many system architectures?”, *IEEE Computer*, 36(3), March 2003, pp. 93-95.

Wayne Wolf, “Application-specific networks-on-chips,” in *Proceedings, SASIMI ‘03*, 2003.

Wayne Wolf, Burak Ozer, and Tiehan Lv, “Architectures for distributed smart cameras,” in *Proceedings, ICME 2003*, IEEE, 2003.

Tiehan Lv, I. Burak Ozer, and Wayne Wolf, “VLSI architectures for distributed smart cameras,” in *Proceedings, ITRE 2003*, IEEE, 2003.

Jiang Xu and Wayne Wolf, “A wave-pipelined on-chip interconnect structure for networks-on-chips,” in *Proceedings, Hot Interconnects 2003*, IEEE, 2003.

Tiehan Lv, Burak Ozer, and Wayne Wolf, “Distributed real-time embedded video processing,” in *Proceedings, High Performance Embedded Computing Workshop*, Lexington MA, 2003.

Tiehan Lv, I. Burak Ozer, and Wayne Wolf, “Exploiting parallelism in media processing using VLIW processor,” in *Proceedings, IEEE International Conference on Image Processing*, IEEE, 2003.

Noureddine Chabini and Wayne Wolf, “Minimizing variables’ lifetime in loop-intensive applications,” in Rajeev Alur and Insup Lee, eds., *Embedded Software*, Berlin: Springer, LNCS 2855, 2003, pp. 100-116.

Shengqi Yang, Wayne Wolf, and Vijay Narayanan, “Power modeling of motion estimation VLSI architecture,” in *Proceedings, 5th Workshop on Media and Streaming Processors*, IEEE, 2003.

Theocharis G. Theocharides, G. M. Link, V.Narayanan, M. J. Irwin, and W. Wolf, “Embedded hardware face detection,” in *Procedings, VLSI Design 2004*, IEEE, 2004.

J.Henkel, W.Wolf, and S.Chakradhar, “On Chip Networks: A scalable communication-centric embedded system design paradigm,” in *Procedings, VLSI Design 2004*, IEEE, 2004.

Scott Craver, Bede Liu, and Wayne Wolf, “Histo-cepstral analysis for reverse engineering watermarks,” in *Conference on Information Sciences and Systems – CISS*, 2004.

Brain Corporation EX2051
IPR2025-01603

J. Lee, V. Narayanan, W. Wolf, "An Architecture for Motion Estimation in the Transform Domain," in *Procedings, VLSI Design 2004*, IEEE, 2004.

N. Chabini and W. Wolf, "An Approach for Reducing Dynamic Power Consumption in Synchronous Sequential Digital Designs," in *Proceedings, ASP-DAC 2004*, IEEE Computer Society Press, 2004..

J. Xu, W. Wolf, T. Lv, J. Henkel, and S. Chakradhar, "A case study in networks-on-chip design for embedded video," in *Proceedings, DATE 04*, IEEE Computer Society Press, 2004.

C. H. Lin, W. Wolf, and Y. Xie, "LZW-based code compression for embedded systems," in *Proceedings, DATE 04*, IEEE Computer Society Press, 2004.

Wayne Wolf, "Embedded is the new paradigm," *IEEE Computer*, 37(3), March 2004, pp. 99-101.

Todd Austin, David Blaauw, Scott Mahlke, Trevor Mudge, Chaitali Chakrabarti, and Wayne Wolf, "Mobile Supercomputers," *IEEE Computer*, 37(5), May 2004, pp. 81-83.

Wayne Wolf, "The future of multiprocessor systems-on-chips," in *Proceedings, 41st Annual Design Automation Conference*, ACM Press, 2004, pp. 681-685.

Marghoob Mohiyuddin, Amit Prakash, Adnan Aziz, and Wayne Wolf, "High-level techniques for signal processing: synthesizing interconnect-efficient low density parity check codes," in *Proceedings, 41st Annual Design Automation Conference*, ACM Press, 2004, pp. 488-491.

Shengqi Yang, Wayne Wolf, and N. Vijaykrishnan, "Search speed and power driven integrated software and hardware optimizations for motion estimation algorithms," in *Proceedings, International Conference on Multimedia and Exhibition*, IEEE, 2004, vol. 1, pp. 707-710.

Chang Hong Lin, Tiehan Lv, Wayne Wolf, and I. Burak Ozer, "A peer-to-peer architecture for distributed real-time gesture recognition," in *Proceedings, International Conference on Multimedia and Exhibition*, IEEE, 2004, vol. 1, pp. 27-30.

Tiehan Lv, Burak Ozer, and Wayne Wolf, "A real-time background subtraction method with camera motion compensation," in *Proceedings, International Conference on Multimedia and Exhibition*, IEEE, 2004, vol, 1, pp. 331-334.

Wayne Wolf, "Smart cameras and pervasive information systems," in L. T. Yang, M. Guo, G. R. Gao, and N. K. Jha, eds., *Embedded and Ubiquitous Computing*, LNCS 3207, Springer, 2004, pp. 1107-1108.

S. Velipasalar and W. Wolf, "Recovering fields of view lines by using projective invariants," in *Proceedings, ICIP 2004*, IEEE, 2004, pp. 3069-3072.

Nourridene Chabini and Wayne Wolf, "An approach for integrating basic retiming and software pipelining," in *Proceedings, EMSOFT 2004*, ACM Press, 2004, pp. 287-296.

Jason Schlessman and Wayne Wolf, "Leakage power considerations for processor array-based vision systems," in *Proceedings of the 12th Workshop on Synthesis and System Integration of Mixed Information Technologies (SASIMI)*, October 2004, pp. 23-26.

Wayne Wolf, "Challenges in system-level design," in Alan J. Hu and Andrew K. Martin, eds., *Formal Methods in Computer-Aided Design*, LNCS 3312, Springer Verlag, 2004, pp. 1-5.

Wayne Wolf, "Applications and architectures," *IEEE Computer*, December 2004.

Shengqi Yang, Wayne Wolf, Wenping Wang, Vijaykrishnan Naraynan, and Yuan Xie, "Low-leakage robust SRAM cell design for sub-100 nm technologies," in *Proceedings, ASP-DAC 2005*, IEEE, 2005, vol. 1, pp. 539-544.

Ahmed A. Jerraya and Wayne Wolf, "Hardware/software interface codesign for embedded systems," *IEEE Computer*, 38(2), February 2005, pp. 63-69.

Wayne Wolf, "Multimedia applications of systems-on-chips," in *Proceedings, DATE '05 Designers' Forum*, ACM Press, 2005, pp. 86-89.

Shengqi Yang, Wayne Wolf, Narayan Vijaykrishnan, Dimitrios Serpanos, and Yuan Xie, "Power attack resistant cryptosystem design: a dynamic voltage and frequency scaling approach," in *Proceedings, DATE '05 Designers' Forum*, ACM Press, 2005, pp. 70-75.

Marinak Sen, Shuvra S. Bhattacharyya, Tiehan Lv, and Wayne Wolf, "Modeling image processing systems with homogeneous parameterized dataflow graphs," in *Proceedings, ICASSP 2005*, Paper DISPS-P2.8 (V-133) IEEE, 2005.

Wayne Wolf, "Building the software radio," *IEEE Computer*, 38(3), March 2005, pp. 87-89.

Brain Corporation EX2051
IPR2025-01603

J. Schlessman, S. Saha, W. Wolf, and S. S. Bhattacharyya, “An extended motion-estimation architecture applied to shape recognition,” in *IEEE International Conference on Multimedia and Expo,* IEEE, 2005, pp. 1504-1507.

R. Chellappa, S. S. Bhattacharyya, S. Saha, W. Wolf, G. Aggarwal, J. Schlessman, and V. Klanzad, “An architectural level design methodology for embedded face detection,” in *Third IEEE/ACM/IFIP International Conference on Hardware/Software Codesign and System Synthesis, CODES+ISSS ’05,* IEEE, 2005, pp. 136-141.

Shengqi Yang; Wolf, W.; Vijaykrishnan, N.; Yuan Xie; Wenping Wang, "Accurate stacking effect macro-modeling of leakage power in sub-100 nm circuits," *VLSI Design, 2005. 18th International Conference on* , vol., no., pp.165,170, 3-7 Jan. 2005.

Ahmed Jerraya, Hannu Tenhunen, and Wayne Wolf, “Multiprocessor systems-on-chips,” *IEEE Computer*, 38(7), July 2005, pp. 36-40.

Wayne Wolf, “The path to world class,” *System Design Frontier,* 2(9), September 2005, pp. 12-14.

Senem Velipasalar and Wayne Wolf, “Multiple object tracking and occlusion handling by information exchange between uncalibrated cameras,” in *Proceedings, IEEE International Conference on Image Processing*, IEEE, 2005, pp. 418-421.

Senem Velipasalar, Wayne Wolf, "Frame-Level Temporal Calibration of Video Sequences from Unsynchronized Cameras by Using Projective Invariants", *IEEE International Conference on Advanced Video and Signal Based Surveillance*, Como, Italy, September 15-16, 2005.

Cheng-Yao Chen, Wayne Wolf, "Real-time Illumination Compensation for Face Processing in Video Surveillance", *IEEE International Conference on Advanced Video and Signal Based Surveillance*, Como, Italy, September 15-16, 2005.

C.-H. Lee and W. Wolf, “Energy/power estimation for LDPC decoders in software radio systems,” in *Proceedings, IEEE Internatiional Symposium on Signal Processing Systems*, IEEE, 2005.

J. Schlessman, B. Ozer, K. Fujino, K. Itoh, and W. Wolf, "FPGA-Based Design of a Surveillance System Employing Optical Flow," in *Proceedings, Workshop on Synthesis and System Integration of Mixed Information Technologies*, 2006.

Sankalita Saha, Shuvra S. Bhattacharyya, and Wayne Wolf, “A communications interface for multiprocessor signal processing systems,” *Proceedings of the 2006 IEEE/ACM/IFIP Workshop on Embedded Systems for Real Time Multimedia,* IEEE, 2006.

F. Haim, M. Sen, D. Ko, S. S. Bhattacharyya, and W. Wolf, “Mapping multimedia applications onto configurable hardware with parameterized cyclo-static dataflow graphs,” in *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing*, IEEE, 2006, pp. III-1052-III-1055.

M. Kushwaha, I. Amundson, C. H. Lin, X. Koutsoukos, S. Neema, J. Sztipanovits, and W. Wolf, “An object-centric programming framework for ambient-aware, service-oriented sensor networks,” in *Proceedings, IPSN*, IEEE, 2006.

Shengqi Yang; Wolf, W.; Vijaykrishnan, N.; Yuan Xie, "Reliability-aware SOC voltage islands partition and floorplan," *Emerging VLSI Technologies and Architectures, 2006. IEEE Computer Society Annual Symposium on* , vol., no., pp.6 pp.,, 2-3 March 2006.

J. Schlessman, C.Y. Chen, B. Ozer, K. Fujino, K. Itoh, W. Wolf, “Hardware/software co-design of an FPGA-based embedded tracking system,” *CVPR Embedded Computer Vision Workshop*, IEEE, 2006.

Wayne Wolf, “A half-million strong at least,” *IEEE Computer*, 39(9), September 2006, pp. 109-110.

Cheng-Yao Chen, Ahmed Abdallah, and Wayne Wolf, “Audiovisual gunshop event recognition,” in *SMC ’06, IEEE International Conference on Systems, Man and Cybernetics*, IEEE, 2006, pp. 4807-4812.

Senem Velipasalar, Jason. Schlessman, Cheng-Yao Chen, Wayne Wolf, and Jaswinder Pal Singh, “SCCS: a scalable clustered camera system for multiple object tracking communicating via Message Passing Interface,” in *Proceedings, International Conference on Multimedia and Expo,* IEEE, 2006.

Senem Velipasalar, Chang-Hong Lin, Jason Schlessman, and Wayne Wolf, “Design and verification of communication protocols for peer-to-peer multimedia systems,” in *Proceedings, International Conference on Multimedia and Expo,* IEEE, 2006.

C. H. Lin, W. Wolf, A. Dixon, X. Koutsoukos, and J. Sztipanovits, “Design and implementation of ubiquitous smart cameras,” in *Proceedings, SUTC 2006*, IEEE, 2006.

Cheng-Yao Chen and Wayne Wolf, "Background modeling and object tracking using multi-spectral sensors," in *Proceedings, ACM Workshop on Video Surveillance and Sensor Networks*, ACM, 2006.

Jason Schlessman, Ikdong Kim, Jaechang Shim, Yun Cheol Baek, and Wayne Wolf, "Low power, low cost wireless camera sensor nodes for human detection," in *Proceedings, Sensys 06*, ACM, 2006.

Cheng-Yao Chen and Wayne Wolf, "An activity model for distributed smart cameras," in *ACM Workshop on Distributed Smart Cameras*, ACM, 2006.

Ahmed Abdallah and Wayne Wolf, "Analysis of distributed noise cancelling," *Second International Conference on Distributed Frameworks for Multimedia Applications*, IEEE, 2007.

Cheng-Yao Chen, Jason Schlessman, and Wayne Wolf, "Towards accessible real-time distributed embedded vision middleware," *ACM Workshop on Funamentals and Application of Computer-Based Design*, ACM, 2006.

Noureddine Chabini and Wayne Wolf, "Reducing the Code Size of Retimed Software Loops under Timing and Resource Constraints," in A. Rettberg, M. Zanella, R. Domer, A. Gertslauer, and F. Rammig, eds., *Embedded System Design: Topics, Techniques and Trends*, Springer, 2007, pp. 255-268.

Dimitrios N. Serpanos and Wayne Wolf, "VLSI models of network-on-chip interconnect," *IFIP International Conference on Very Large Scale Integration*, 2007.

Chia-Han Lee and Wayne Wolf, "Design methodology of software radio systems," *Embedded Computer Systems: Architectures, Modeling, and Simulation*, LNCS vol. 4599, July 2007, pp. 355-364.

Chia-Han Lee and Wayne Wolf, "Multiple access-inspired cooperative spectrum sensing for cognitive radio," in *Proceedings of the IEEE Military Communications Conference*, IEEE, 2007.

Jason Schlessman, Mark Lodato, Burak Ozer, and Wayne Wolf, "Heterogeneous MPSoC architectures for embedded computer vision," in *2007 IEEE International Conference on Multimedia and Expo*, IEEE, 2007, pp. 1870-1873.

Mark Daniels, Kate Muldawer, Jason Schlessman, Burak Ozer, and Wayne Wolf, "Real-time human motion detection with distributed smart cameras," IEEE/ACM International Conference on Distributed Smart Cameras, IEEE, 2007.

Noureddine Chabini and Wayne Wolf, "Register binding guided by the size of variables," in *Proceedings, ICCD '07*, IEEE Computer Society Press, 2007.

Wayne Wolf, "Guest editor's introduction: the embedded systems landscape," *IEEE Computer*, 40(10), October 2007, pp. 29-31.

Noureddine Chabini and Wayne Wolf, "An approach for computing the initial state for retimed synchronous sequential circuits," in *Proceedings, HLDVT '07*, IEEE Computer Society Press, 2007.

Chia-Han Lee and Wayne Wolf, "Energy-efficient techniques for cooperative spectrum sensing in cognitive radios," in *Proceedings, 2nd IEEE Workshop on Cognitive Radio Networks*, IEEE, 2008.

Chia-Han Lee and Wayne Wolf, "Evaluation of functional architectures of cognitive radio systems," *Proceedings, IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, IEEE, April 2008, pp. 5392-5395.

Ahmed Abdallah, Wayne Wolf, Graham R. Hellestrand: Using Empirical Science to Engineer Systems: Optimizing Cache for Power and Performance. DSD 2008: 325−333.

Eshel Haritan, Toshihiro Hattori, Hiroyuki Yagi, Pierre Paulin, Wayne Wolf, Achim Nohl, Drew Wingard, and Mike Muller. 2008. "Multicore design is the challenge! what is the solution?" in *Proceedings of the 45th Annual Design Automation Conference* (DAC '08). ACM, New York, NY, USA, pp. 128-130.

A. Abdallah, W. Wolf, and G. Hellestrand, "Statistical characterization of execution time through simulation," in *Proceedings, IEEE Workshop on Intelligent Solutions in Embedded Systems (WISES '08)*," Regensburg Germany, IEEE, July 10-11 2008, pp. 61-73.

Hamid Aghajan, Richard Kleihorst, Bernhard Rinner, and Wayne Wolf, "Introduction to the issue on distributed processing in vision networks," *IEEE Journal of Selected Topics in Signal Processing*, 2(4), August 2008, pp. 445-447.

Bernard Rinner and Wayne Wolf, "A bright future for distributed smart cameras," *Proceedings of the IEEE*, 96(10), October 2008, pp. 1562-1564.

Fumin Zhang, Klementyna Szwaykowska, Wayne Wolf, and Vincent Mooney, "Task scheduling for control oriented requirements for cyber-physical systems," in *2008 Real-Time Systems Symposium*, IEEE, 2008, pp. 47-56.

Brain Corporation EX2051
IPR2025-01603

Minki Cho, Jason Schlessman, Wayne Wolf, and Saibal Mukhopadhyay, “Accuracy-aware SRAM: a reconfigurable low power SRAM architecture for mobile multimedia applications,” in *Proceedings, ASP-DAC 2009*, IEEE, 2009, pp. 823-828.

Wayne Wolf, “Cyber-physical systems,” *IEEE Computer*, 42(3), March 2009, pp. 88-89.

D. Lee, S. S. Bhattacharyya, and M. Wolf, “High-performance buffer mapping to exploit DRAM concurrency in multiprocessor DSP systems,” In *Proceedings of the IEEE International Symposium on Rapid System Prototyping (RSP)*, pp. 137-144, June, 2009.

Honggab Kim, Romberg, J.; Wolf, W., "Multi-camera tracking on a graph using Markov chain Monte Carlo," *Third ACM/IEEE International Conference on Distributed Smart Cameras, 2009. ICDSC 2009*, vol., no., pp.1-8, Aug. 30 2009-Sept. 2 2009.

Se Hun Kim, Saibal Mukhopadhyay, Wayne Wolf, "Experimental analysis of sequence dependence on energy saving for error tolerant image processing," *International Symposium on Low Power Electronics and Design*, IEEE, pp.347-350, 2009

Chung-Ching Lin, Wayne Wolf, ”MCMC-based Feature-guided Particle Filtering for Tracking Moving Objects from a Moving Platform,” *Proceedings of the IEEE ICCV Embedded Computer Vision Workshop*, 2009.

Wayne Wolf, “Multiprocessor System-on-Chip Technology,” *IEEE Signal Processing Magazine*, 26(6), November 2009, pp. 50-54.

K. Szwaykowska, F. Zhang, and W. Wolf (2009), “Tracking error under time delay and asynchronicity in distributed camera systems,” In *Proc. of American Control Conferences(ACC2009)*, 4886-4891.

Zhang, F., Z. Shi, and W. Wolf (2009), “A dynamic battery model for co-design in cyber-physical systems,” in *Proc. of 2nd International Workshop on Cyber-Physical Systems (WCPS 2009)*, 51-56.

G. Frantz, J. Henkel, J. Rabaey, J. Schneider, M. Wolf, U. Batur, “Ultra-low power signal processing,” *IEEE Signal Processing Magazine*, 27(2), February 2010, pp. 149-154.

D. Lee, M. Wolf, and H. Kim, “Design space exploration of the Turbo decoding algorithm on GPUs,” in *Proceedings of the ACM International Conference on Compilers, Architectures and Synthesis for Embedded Systems (CASES)*, pp. 217-226, Oct. 2010.

Matthew Poremba, Yuan Xie, and Marilyn Wolf, “Accelerating adaptive background subtraction with GPU and CBEA architecture,” in *IEEE Workshop on Signal Processing Systems-SiPS*, IEEE, 2010, pp. 305-310.

Chung-Ching Lin and Marilyn Wolf, "Detecting Moving Objects Using a Camera on a Moving Platform", in *International Conference on Pattern Recognition* (ICPR), IEEE, 2010.

Chung-Ching Lin and Marilyn Wolf, "Belief Propagation for Detecting Moving Objects from a Moving Platform", in *International Conference on Image Processing, Computer Vision and Pattern Recognition* (IPCV), IEEE, 2010.

Honggab Kim and Marilyn Wolf, “Distributed tracking in a large-scale network of smart cameras,” in *Proceedings of the Fourth ACM/IEEE International Conference on Distributed Smart Cameras*, ACM Press, 2010, pp. 8-16.

C. Lin and M. Wolf, “Monocular Online Learning for Road Region Labeling and Object Detection from a Moving Platform,” In *International Symposium on Visual Computing (ISVC)*, 2011.

Se Hun Kim, Mukhopadhyay, S., Honggab Kim, and Wolf, M., "Low energy process variation tolerant digital image processing system design based on accuracy-energy tradeoffs," *Signal Processing Systems (SiPS), 2011 IEEE Workshop on* , vol., no., pp.106-111, 4-7 Oct. 2011

Muhammad Umer Tariq, Santiago Grijalva and Marilyn Wolf, “Towards a distributed, service-oriented control infrastructure for smart grid,” in *Proceedings, ICCPS ’11*, 2011, ACM Press.

Medhrad Pakmehr, Manuj Dhingra, Nathan Fitzgerald and James D. Paduano, Marilyn Wolf, Eric Feron, and Alireza Behbahani, “Distributed architectures integrated with high-temperature electronics for engine monitoring and control,” in *47th AIAA/ASME/SAE/ASEE Joint Propulsion Conference*, 31 July-3 Aug 2011, San Diego CA.

Muhammad Umer Tariq, Hasan Arshad Nasir, Abubakr Muhammad and Marilyn Wolf, “Model-driven performance analysis of large scale irrigation networks,” in *Proceedings, ICCPS 2012*, IEEE, 2012.

Marilyn Wolf and Saibal Mukhopadhyay, “Physics of Computing as an introduction to computer engineering,” in *2013 Frontiers in Education Conference*, IEEE, 2013, pp. 657-660.

Marilyn Wolf, “Questions and answers: embedded computing expert,” *Circuit Cellar*, no. 281, December 2013, pp. 10-12.

Muhammed Umer Tariq, Brian Paul Swenson, Arun Padmanabhan Narasimhan, Santiago Grijalva, George F. Riley, and Marilyn Wolf, “Cyber-physical co-simulation of smart grid applications using ns-3,” *in Proceedings, Workshop on ns-3*, Atlanta GA, May 2014.

Burak Ozer and Marilyn Wolf, “A train station surveillance system: challenges and solutions,” in *2014 IEEE Conference on Computer Vision and Pattern Recognition Workshops, CVPRW* 2014, IEEE, 2014, pp. 652-658.

M. U. Tariq, J. Florence, M. Wolf, “Design Specification of Cyber-Physical Systems: Towards a Domain-Specific Modeling Language based on Simulink, Eclipse Modeling Framework, and Giotto,” International Workshop on Model-Based Architecting and Construction of Embedded Systems (ACES-MB), 2014 .

Marilyn Wolf and Saibal Mukhopodhyay, “Information Theoretic Models for Signatures in VLSI Power Delivery Systems,” in *Proceedings, WESS ’14*, ACM, 2014.

Monodeep Kar, Arvind Singh, Denny Lie, Marilyn Wolf and Saibal Mukhopadhyay, "Impact of inductive integrated voltage regulator on the power attack vulnerability of encryption engines: A simulation study," *Custom Integrated Circuits Conference (CICC), 2014 IEEE Proceedings of the* , vol., no., pp.1,4, 15-17 Sept. 2014

Ritwik Dutta and Marilyn Wolf, “An Extensible Software Infrastructure for Computer Aided Custom Monitoring of Patients in Smart Homes,” *International Conference on Systems and Software Engineering (ICSSE)*, Miami, USA, March 9-10, 2015, http://www.waset.org/Publications/?path=Publications&p=99.

M. Wolf and E. Feron, "What don't we know about CPS architectures?," *Design Automation Conference (DAC), 2015 52nd ACM/EDAC/IEEE*, San Francisco, CA, 2015, pp. 1-4.

Cathy Bodine and Marilyn Wolf, “Activity monitoring using Internet-of-Things sensing + cloud analytics,” in *NIH/IEEE Point-of-Care Technologies Conference*, November 2015.

Christopher Coelho, David Coelho, and Marilyn Wolf, “An IoT Smart Home Architecture for Long-Term Care of People with Special Needs,” in *Proceedings, WFIoT ’15*, IEEE, 2015.

Marilyn Wolf, Mihaela van der Schaar, Honggab Kim, and Jie Xu, “Caring analytics for adults with special needs,” *IEEE Design & Test*, 32(5), October 2015, pp. 35-44.

Jason Schlessman and Marilyn Wolf, “Tailoring design for embedded computer vision applications,” *IEEE Computer*, 48(5), May 2015, pp. 58-62.

Marilyn Wolf, "Embedded Software in Crisis," *Computer* , 49(1), pp.88-90, Jan. 2016.

M. Wolf, "Ultralow Power and the New Era of Not-So-VLSI," in *IEEE Design & Test*, vol. 33, no. 4, pp. 109-113, Aug. 2016.

Christopher Coelho, Sethu Chidambaram, and Marilyn Wolf, “An IoT smart home system for activity analysis,” in *Proceedings, RESNA 2016*, 2016.

Samarjit Chakraborty, Mohammad Abdullah Al Faruque, Wanli Chang, Dip Goswami, Marilyn Wolf, Qui Zu, “Automotive cyber-physical systems: a tutorial introduction,” *IEEE Design & Test*, July/August 2016.

Marilyn Wolf, Shuvra Bhattacharyya, Jacques Florence, and Adrian E. Sapio, “Power and thermal modeling for communication systems,” in *Proceedings, SiPS 2016*, IEEE, 2016.

Adrian Sapio, Marilyn Wolf, and Shuvra Bhattacharyya, “Compact modeling and management of reconfiguration in digital channelizer implementation,” in *Proceedings, GlobalSIP 2016*, IEEE, 2016.

M. Wolf, "The Physics of Event-Driven IoT Systems," in *IEEE Design & Test*, vol. 34, no. 2, pp. 87-90, April 2017.

Marilyn Wolf and Saibal Mukhopodhyay, “VLSI for the Internet of Things,” *IEEE Computer*, 50(6), June 2017, pp. 16-18.

Marilyn Wolf and Shuvra Bhattacharyya, “Stochastic models for optimization of software-defined radio operation,” in *Proceedings, Wincomm 2017*, 2017.

L. Li, A. E. Sapio, J. Wu, Y. Liu, Kyunghun Lee, M. Wolf, and S. S. Bhattacharyya, "Design and implementation of adaptive signal processing systems using Markov decision processes," *2017 IEEE 28th International Conference on Application-specific Systems, Architectures and Processors (ASAP)*, Seattle, WA, 2017, pp. 170-175. doi: 10.1109/ASAP.2017.7995275

Marilyn Wolf. 2017. Activity Sequence Classification for Monitoring and Assessment. In Proceedings of the 11th International Conference on Distributed Smart Cameras (ICDSC 2017). ACM, New York, NY, USA, 88-94. DOI: https://doi-org.prx.library.gatech.edu/10.1145/3131885.3131913

Marilyn Wolf, “Computing in the real world is the grandest of challenges,” *IEEE Computer*, May 2018, pp. 90-91.

S. Mukhopodhyay, M. Wolf, M. F. Amir, E. Gebhardt, J. H. Ko, J. H. Kung, and B. Musassar, "The CAMEL approach to stacked sensor smart cameras," *2018 Design, Automation & Test in Europe Conference & Exhibition (DATE)*, Dresden, 2018, pp. 1299-1303. doi: 10.23919/DATE.2018.8342214

Adrian Sapio, Shuvra Bhattacharyya and Marilyn Wolf, “Efficient Solving of Markov Decision Processes on GPUs using Parallelized Sparse Matrices,” in *Proceedings, DASYS 2018*, IEEE, 2018.

Evan Gebhardt and Marilyn Wolf, “CAMEL dataset for visual and thermal infrared multiple object detection and tracking,” in *Proceedings, AVSS 2018*, IEEE, 2018.

A. Sapio, S. S. Bhattacharyya and M. Wolf, "Efficient Solving of Markov Decision Processes on GPUs Using Parallelized Sparse Matrices," *2018 Conference on Design and Architectures for Signal and Image Processing (DASIP)*, Porto, 2018, pp. 13-18.

Muhammad Umer Tariq and Marilyn Wolf. 2018. Hourglass-shaped architecture for model-based development of safe and secure cyber-physical systems: poster. In Proceedings of the 5th Annual Symposium and Bootcamp on Hot Topics in the Science of Security (HoTSoS '18).

Lin Li, Peter Deaville, Adrian Sapio, Lauri Anttila, Mikko Valkama, Marilyn Wolf, and Shuvra S. Bhattacharyya, “A framework for design and implementation of adaptive digital predistortion systems,” in *IEEE International Conference on Artificial Intelligence Circuits and Systems*, IEEE, 2019.

Adrian Sapio, R. Tatiefo, S. Bhattacharyya, and M. Wolf, “GEMBench: A platform for collaborative development of GPU accelerated embedded Markov decision systems,” in *Proceedings of the International Conference on Embedded Computer Systems: Architectures, Modeling, and Simulation, 2019.*

L. Li, P. Deaville, A. Sapio, L. Anttila, M. E. Valkama, M. Wolf, S. Bhattacharyya, “A framework for design and implementation of adaptive digital predistortion systems,” in *Proceedings of the IEEE International Conference on Artificial Intelligence Circuits and Systems (AICAS)*, 2019.

M. Wolf, "Computer Security as Civil Defense," in *Computer*, vol. 52, no. 1, pp. 54-57, Jan. 2019.

Burhan Ahmad Mudassar, Priyabrata Saha, Yun Long, Muhammad Faisal Amir, Evan Gebhardt, Taesik Na, Jong Hwan Ko, Marilyn Wolf and Saibal Mukhopadhyay, “A camera with a brain---embedding machine learning in 3D,” in *Proceedings, DATE Conference 2019*, IEEE, 2019.

Deep Samal, Evan T. Gebhardt, and Marilyn Wolf, “Flash lidar object detection and tracking,” in *1st International Workshop on Artificial Intelligence of Things,* in conjunction with KDD 2019.

L.A. Kruse, J.M. Bradley, M. Wolf, “A Control Authority Switching System for Avoiding Multicopter Loss of Control Using a Markov Decision Process,” in *AIAA Scitech 2019 Forum*, 1688

M. Wolf, S.R. Rajagopalan, D. Serpanos, “Guest Editors’ Introduction: Circuits and Systems for VLSI IoT Devices,” *IEEE Design & Test*, 36 (4), 2019, pp. 5-5

M. Wolf, "Machine Learning + Distributed IoT = Edge Intelligence," *2019 IEEE 39th International Conference on Distributed Computing Systems (ICDCS)*, Dallas, TX, USA, 2019, pp. 1715-1719, doi: 10.1109/ICDCS.2019.00170.

M. Wolf, “Thoughts on Edge Intelligence,” *Proceedings of the 2019 on Great Lakes Symposium on VLSI*, pp. 1-1

D. Sepranos and M. Wolf, "Challenges and Opportunities in VLSI IoT Devices and Systems," in IEEE Design & Test, vol. 36, no. 4, pp. 24-30, Aug. 2019, doi: 10.1109/MDAT.2019.2917178.

M. Rapp, H. Amrouch, M. Wolf and J. Henkel, "Machine Learning Techniques to Support Many-Core Resource Management: Challenges and Opportunities," 2019 ACM/IEEE 1st Workshop on Machine Learning for CAD (MLCAD), Canmore, AB, Canada, 2019, pp. 1-6, doi: 10.1109/MLCAD48534.2019.9142064.

P. Sarathy, S. Baruah, S. Cook, M. Wolf, “Realizing the Promise of Artificial Intelligence for Unmanned Aircraft Systems through Behavior Bounded Assurance,” in *2019 IEEE/AIAA 38th Digital Avionics Systems Conference (DASC)*, pp. 1-8

R. P. Dick, L. Shang, M. Wolf and S. Yang, "Guest Editors’ Introduction: Embedded Intelligence in the Internet-of-Things," in IEEE Design & Test, vol. 37, no. 1, pp. 5-6, Feb. 2020, doi: 10.1109/MDAT.2019.2957370.

M. Wolf, "Distributed Data Analysis and Reliable Operation of Cyberphysical Systems," in Computer, vol. 53, no. 3, pp. 14-15, March 2020, doi: 10.1109/MC.2020.2966108.

Marilyn Wolf, “In memoriam: Dan Dobberpuhl,” *Computer*, 53(3), 2020, p. 83.

S. S. Bhattacharyya and M. C. Wolf, "Research Challenges for Heterogeneous Cyberphysical System Design," in Computer, vol. 53, no. 7, pp. 71-75, July 2020, doi: 10.1109/MC.2020.2988953.

A. Sapio, S. S. Bhattacharyya and M. Wolf, "Efficient Model Solving for Markov Decision Processes," 2020 IEEE Symposium on Computers and Communications (ISCC), Rennes, France, 2020, pp. 1-5, doi: 10.1109/ISCC50000.2020.9219668.

K. Samal, M. Wolf and S. Mukhopadhyay, "Hybridization of Data and Model based Object Detection for Tracking in Flash Lidars," 2020 International Joint Conference on Neural Networks (IJCNN), Glasgow, United Kingdom, 2020, pp. 1-6, doi: 10.1109/IJCNN48605.2020.9207677.

D. Serpanos, S. Yang and M. Wolf, "Neural Network-Based Side Channel Attacks and Countermeasures," 2020 57th ACM/IEEE Design Automation Conference (DAC), San Francisco, CA, USA, 2020, pp. 1-2, doi: 10.1109/DAC18072.2020.9218511.

M,. Rapp, O. Elfatairy, M. Wolf, J. Henkel, H. Amrouch, “Towards NN-based Online Estimation of the Full-Chip Temperature and the Rate of Temperature Change,” in *Proceedings of the 2020 ACM/IEEE Workshop on Machine Learning for CAD*, pp. 95-100

R. Gal, D.Z. Pan, H. Ren, M. Pandey, M. Wolf, A. Ziv, “ML for CAD-Where is the Treasure Hiding?,” in *Proceedings of the 2020 ACM/IEEE Workshop on Machine Learning for CAD*, p. 137.

K. Muvva, J.M. Bradley, M. Wolf, T. Johnson, “Assuring Learning-Enabled Components in Small Unmanned Aircraft Systems,” in *AIAA Scitech 2021 Forum*, 0994

K. Samal, M. Wolf and S. Mukhopadhyay, "Closed-loop Approach to Perception in Autonomous System," 2021 Design, Automation & Test in Europe Conference & Exhibition (DATE), 2021, pp. 463-468, doi: 10.23919/DATE51398.2021.9474243.

Marilyn Wolf, Jörg Henkel, Raviv Gal, Ulf Schlichtmann, “Report on First and Second ACM/IEEE Workshop on Machine Learning for CAD (MLCAD),” *IEEE Design & Test*, 38(2), April 2021, doi: 10.1109/MDAT.2021.3066137

V. V. R. M. Krishna Rao Muvva, M. Rapp, J. Henkel, H. Amrouch and M. Wolf, "On the Effectiveness of Quantization and Pruning on the Performance of FPGAs-based NN Temperature Estimation," *2021 ACM/IEEE 3rd Workshop on Machine Learning for CAD (MLCAD)*, 2021, pp. 1-7, doi: 10.1109/MLCAD52597.2021.9531256.

Jian Zhang, Jian Tang, Yiran Chen, Jie Liu, Jieping Ye, Marilyn Wolf, Vijaykrishnan Narayanan, Mani Srivastava, Michael I. Jordan, and Victor Bahl. 2021. The 4th Artificial Intelligence of Things (AIoT) Workshop. In *Proceedings of the 27th ACM SIGKDD Conference on Knowledge Discovery & Data Mining*

(KDD '21). Association for Computing Machinery, New York, NY, USA, 4179–4180. https://doi-org.libproxy.unl.edu/10.1145/3447548.3469464

K. Samal, M. Wolf and S. Mukhopadhyay, "Introspective Closed-Loop Perception for Energy-efficient Sensors," *2021 17th IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS)*, 2021, pp. 1-8, doi: 10.1109/AVSS52988.2021.9663801.

Philip Koopman, Benjamin Kuipers, William H. Widen, and Marilyn Wolf, "Ethics, Safety and Autonomous Vehicles," *IEEE Computer*, 54(12), December 2021.

Veera Venkata Ram Murali K Muvva, Guoming Li, Marilyn Wolf, "Autonomous UAV Landing on a Moving UAV using Machine Learning," AIAA SCITECH 2022 Forum, 2022.

Jian Zhang, Jian Tang, Yiran Chen, Jie Liu, Jieping Ye, Marilyn Wolf, Vijaykrishnan Narayanan, Mani Srivastava, Michael I. Jordan, and Victor Bahl. 2022. The 5th Artificial Intelligence of Things (AIoT) Workshop. In *Proceedings of the 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD '22)*. Association for Computing Machinery, New York, NY, USA, 4912–4913. https://doi-org.libproxy.unl.edu/10.1145/3534678.3542911

Marilyn Wolf, "Computer Engineering Education," *Computer*, 55(12), 2022.

K. Samal, H. Kumawat, M. Wolf and S. Mukhopadhyay, "A Methodology for Understanding the Origins of False Negatives in DNN Based Object Detectors," *2022 International Joint Conference on Neural Networks (IJCNN)*, Padua, Italy, 2022, pp. 1-8, doi: 10.1109/IJCNN55064.2022.9892390.

M. Wolf and K. Samal, "Attacks on Image Sensors," *2022 IEEE/ACM International Conference On Computer Aided Design (ICCAD)*, San Diego, CA, USA, 2022, pp. 1-6.

Veera Venkata Ram Murali K Muvva, Kruttidipta Samal, Justin M Bradley, Marilyn Wolf, "A Closed Loop Perception Subsystem for small Unmanned Aerial Systems," AIAA SCITECH 2023 Forum, 2023.

Samal, Kruttidipta, and Marilyn Wolf. "Machine Learning Components for Autonomous Navigation Systems." In *Embedded Machine Learning for Cyber-Physical, IoT, and Edge Computing: Use Cases and Emerging Challenges*, pp. 201-231. Cham: Springer Nature Switzerland, 2023.

N. Chabini and M. C. Wolf, "Path Balancing for Reducing Dynamic Power Consumption in Digital Designs Containing IP-Blocks," *2023 IEEE World AI IoT Congress (AIIoT)*, Seattle, WA, USA, 2023, pp. 0730-0735, doi: 10.1109/AIIoT58121.2023.10174303.

Marilyn Wolf and Jan Madsen, "Computer engineering education," in *IEEE Computer*, 56(11), November 2023, pp. 17-19.

S. Pasricha and M. Wolf, "Ethical Design of Computers: From Semiconductors to IoT and Artificial Intelligence," in IEEE Design & Test, vol. 41, no. 1, pp. 7-16, Feb. 2024, doi: 10.1109/MDAT.2023.3277815.

D. Serpanos and M. Wolf, "Safety and Artificial Intelligence in Cyberphysical Systems," in Computer, vol. 57, no. 3, pp. 123-126, March 2024, doi: 10.1109/MC.2024.3350289.

V. V. R. M. K. Rao Muvva, K. T. Joseph, K. Samal, M. Wolf and S. Pitla, "Adaptive Perception Control for Aerial Robots with Twin Delayed DDPG," 2024 Design, Automation & Test in Europe Conference & Exhibition (DATE), Valencia, Spain, 2024, pp. 1-6, doi: 10.23919/DATE58400.2024.10546708.

W. H. Widen and M. C. Wolf, "Corporate Governance and Management of AI-Driven Product Development: Vehicle Automation," 2024 Design, Automation & Test in Europe Conference & Exhibition (DATE), Valencia, Spain, 2024, pp. 1-6, doi: 10.23919/DATE58400.2024.10546756.

Daniel D. Richter, Sharon A. Billings, Susan L. Brantley, Jerome Gaillardet, Daniel Markewitz, William H. Schlesinger, Ronald Amundson, Gail M. Ashley, Allan R. Bacon, Roger C. Bales, Dan Binkley, Zachary Brecheisen, Julio Calvo-Alvarado, Nicolas Cassar, Chelsea Clifford, Louis A. Derry, Matt Edgeworth, Martha-Cary Eppes, Ying Fan, Terry A. Ferguson, Marie-Anne de Graaff, Jo Handelsman, Alfred E. Hartemink, Kirsten Hofmockel, Richard J. Huggett, Esteban G. Jobbagy, Hyun Seok Kim, Jagdish Krishnaswamy, Praveen Kumar, Susan Lozier, Louis Lu, William H. McDowell, John R. McNeill, Neung-Hwan Oh, Katherine O'Neill, Mary E.

Prendergast, Curtis J. Richardson, Justin B. Richardson, Paul A. Schroeder, Kate Scow, Christina Siebe, Aaron Thompson, Timothy White, Cathy L. Whitlock, Marilyn Wolf, "Earth Sciences Are the Model Sciences of the Anthropocene", *Perspectives of Earth and Space Scientists*, 5, e2024CN000237.

W. Widen and M. Wolf, "Redux: Corporate Governance and Management of AI-Driven Product Development," in Computer, vol. 57, no. 11, pp. 95-98, Nov. 2024, doi: 10.1109/MC.2024.3441188.

Juergen Becker and Marilyn Wolf, "Lynn Conway: Two Remembrances," *IEEE Design & Test*, 41(6), pp. 97-100, 2024.

William Widen and Marilyn Wolf, "Redux: Corporate Governance and Management of AI-Driven Product Development," *IEEE Computer*, 57(11), November 2024 pp. 95-98.

S. Pasricha and M. Wolf, "Erratum to 'Ethical Design of Computers: From Semiconductors to IoT and Artificial Intelligence'," IEEE Design & Test, 42(1), 2025, pp. 70-71.

Books and book chapters

Dwight D. Hill, Kurt Keutzer, and Wayne Wolf, "Overview of the IDA System: A Toolset for VLSI Layout Synthesis," in Wolfgang Fichtner and Martin Morf, eds., *VLSI CAD Tools and Applications*, Kluwer Academic Publishers, 1987, pp. 233-263.

Wayne H. Wolf and Alfred E. Dunlop, "Symbolic Layout and Compaction," in Bryan T. Preas and Michael J. Lorenzetti, eds., *Physical Design Automation of VLSI Systems*, Benjamin-Cummings, 1988, chapter 6.

Wayne Wolf, Andres Takach, and Tien-Chien Lee, "Architectural optimization methods for control-dominated machines," in Raul Camposano and Wayne Wolf, eds., *High-Level VLSI Synthesis*, Kluwer Academic Publishers, 1991.

Raul Camposano and Wayne Wolf, eds., *High-Level VLSI Synthesis*, Kluwer Academic Publishers, Norwell MA, 1991.

Wayne Wolf, *Modern VLSI Design*, P T R Prentice Hall, 1994.

Sharad Malik. Wayne Wolf, Andrew Wolfe, Yao-Tsun Steven Li, and Ti-Yen Yen, "Performance analysis of embedded systems," in G. De Micheli and M. Sami, eds., *Hardware-Software Co-Design*, Kluwer Academic Publishers, 1996.

Ti-Yen Yen and Wayne Wolf, *Hardware-Software Co-Synthesis of Distributed Embedded Systems*, Kluwer Academic Publishers, 1997.

Joergen Staunstrup and Wayne Wolf, eds., *Hardware/Software Co-Design: Principles and Practice*, Kluwer Academic Publishers, 1998.

Wayne Wolf, "Hardware/Software Co-Synthesis Algorithms," in Joergen Staunstrup and Wayne Wolf, eds., *Hardware/Software Co-Design: Principles and Practice*, Kluwer Academic Publishers, 1998.

Wayne Wolf, *Modern VLSI Design*, second edition, P T R Prentice Hall, 1998.

Wayne Wolf, "Hardware/Software Co-Synthesis Algorithms," in A.-A. Jerraya and J. Mermet, eds., *System-Level Synthesis*, NATO Science Series, Series E: Applied Sciences, Vol. 357, Kluwer Academic Publishers, 1999, pp. 189-217.

Wayne Wolf, "Embedded Computing Systems and Hardware/Software Co-Design," Chapter 77 in *The VLSI Handbook*, Wai-Kai Chen, editor, CRC Press, 2000.

Wayne Wolf, "Video Processing Architectures," Section 17.4 in Richard C. Dorf, ed., *The Electrical Engineering Handbook*, CRC Press, 2000.

Wayne Wolf, *Computers as Components: Principles of Embedded Computing System Design*, Morgan Kaufman, 2000.

Giovanni De Micheli, Rolf Ernst, and Wayne Wolf, eds., *Readings in Hardware/Software Co-Design*, Morgan Kaufman, 2001.

Wayne Wolf, "Embedded Systems-on-Chips," Chapter 22 in Vojin Oklobzija, ed., *VLSI Design*, CRC Press, 2001.

Wayne Wolf, *Modern VLSI Design*, second edition (Chinese translation), P T R Prentice Hall, 2001.

Zhao Wu and Wayne Wolf, "Parallel Architectures for Programmable Video Signal Processing," in Yu Hen Hu, ed., *Programmable Digital Signal Processors*, Marcel Dekker, 2002.

Brain Corporation EX2051
IPR2025-01603

Wayne Wolf, *Modern VLSI Design*, third edition, P T R Prentice Hall, 2002.

Burak Ozer, Tiehan Lv, and Wayne Wolf, "Real-time analysis of human body parts and gesture recognition in 3D," in Nikos Sarris and Michael G. Strintzis, eds., *3D Modeling and Animation: Synthesis and Analysis Techniques for the Human Body*, Idea Group, 2004.

Wayne Wolf, *FPGA-Based System Design*, P T R Prentice Hall, 2004.

Ahmed Amine Jerraya and Wayne Wolf, eds., *Multiprocessor Systems-on-Chips*, Morgan Kaufman, 2004.

Ahmed Amine Jerraya and Wayne Wolf, "The What, Why and How of MPSoCs," Chapter 1 in Ahmed Amine Jerraya and Wayne Wolf, eds., *Multiprocessor Systems-on-Chips*, Morgan Kaufman, 2004.

Santanu Dutta, Jens Rennert, Tiehan Lv, Jiang Xu, Shengqi Yang, and Wayne Wolf, "MPSoCs for Video," Chapter 14 in Ahmed Amine Jerraya and Wayne Wolf, eds., *Multiprocessor Systems-on-Chips*, Morgan Kaufman, 2004.

Shuvra Bhattacharyya and Wayne Wolf, "Tools and methodologies for system-level design," Chapter 3 in Louis Scheffer, Luciano Lavagno, and Grant Martin, eds., *EDA for IC System Design, Verification, and Testing*, Taylor & Francis, 2006.

Shengqi Yang, Wayne Wolf, N. Vijaykrishnan, Yuan Xie, and Dimitrios Serpanos, "Vulnerabilities and countermeasures for embedded processors," in D. N. Serpanos and R. Giladi, eds., *Security and Embedded Systems*, IOS Press, 2006.

Wayne Wolf, *High Performance Embedded Computing: Architectures, Applications, and Methodologies*, Elsevier, 2006.

Wayne Wolf, *Computers as Components: Principles of Embedded Computing System Design*, 2nd ed., Elsevier, 2008.

Wayne Wolf, "Intellectual Property-Based Design," Chapter 11 in David R. Martinez, Robert A. Bond, and M. Michael Vai, eds., *High Performance Embedded Computing Handbook: A Systems Perspecvtive*, CRC Press, 2008.

Bernhard Rinner and Wayne Wolf, ""Toward pervasive smart camera networks," in Hamid Aghajan and Andrea Cavallaro, *Multi-Camera Networks: Principles and Applications*, Academic Press, 2009.

Wayne Wolf, *Modern VLSI Design: IP-Based Design*, 4th ed., Prentice Hall Professional, 2009.

Wayne Wolf, *Modern VLSI Design: IP-Based Design*, 4th international ed., Prentice Hall Professional, 2009.

Wayne Wolf, *Computers as Components: Principles of Embedded Computing System Design*, 2nd ed., Chinese translation, Morgan Kaufman, 2009.

Katalin Popovici, Frederic Rousseau, Ahmed A. Jerraya, and Marilyn Wolf, *Embedded Software Design and Programming of Multiprocessor System-on-Chip: Simulink and System C Case Studies*, Kluwer, 2010.

Mike Hinchley, Bernd Kleinjohann, Lisa Kleinjohann, Peter Lindsey, Franz J. Rammig, Jon Timmis, and Marilyn Wolf, eds., *Distributed, Parallel and Biologically Inspired Systems*, Springer, 2010.

Wayne Wolf, *High-Performance Embedded Computing: Architectures, Applications, and Methodologies*, Chinese translation, Morgan Kaufman, 2011.

Marilyn Wolf, *Computers as Components: Principles of Embedded Computing System Design*, 3rd ed., Morgan Kaufman, 2012.

Marilyn Wolf and Jason Schlessman, "Distributed smart cameras and distributed computer vision," in Shuvra S. Bhattacharyya, Ed F. Deprettere, Rainer Leupers, asnd Jarmo Takala, eds., *Handbook of Signal Processing Systems*, second edition, 2013, pp. 465-479.

Marilyn Wolf and Jason Schlessman, "Distributed smart cameras for distributed computer vision," Chapter 23 in Joel Trussell, Anuj Srivastava, Amit K. Roy Chowdhury, Ankur Srivastava and Patrick Taylor, eds., *Academic Press Library in Signal Processing: Volume 4*, Elsevier, 2013.

Marilyn Wolf, *High Performance Embedded Computing: Applications in Cyber-Physical Systems and Mobile Computing*, second edition, Elsevier, 2014.

Marilyn Wolf, *Computers as Components: Principles of Embedded Computing System Design*, 3rd ed., Chinese language edition, Morgan Kaufman/Chinese Machine Press, 2014.

Brain Corporation EX2051
IPR2025-01603

Marilyn Wolf, "Platforms and Architectures for distributed smart cameras," Chapter 1 in Christophe Bobda and Senem Velipasalar, eds., *Distributed Embedded Smart Cameras,* New York: Springer, 2014, pp. 3-24.

Marilyn Wolf, "Distributed smart cameras in the age of cloud computing and Internet-of-Things," Chapter 11 in Branislav Kisacanin and Margrit Gelautz, eds., *Advances in Embedded Computer Vision*, Heidelberg: Springer, 2014, pp. 239-248.

Muhammed Umer Tariq, Santiago Grijalva, and Marilyn Wolf, "A service-oriented, cyber-physical reference model for smart grid," in Siddhartha Kumar Khaitan, Chen-Ching Liu, and James D. McCalley, *eds*., *Cyber Physical Systems Approach to Smart Electric Power Grid*, New York:Springer, 2015, pp. 25-42.

Shuvra Bhattacharyya and Marilyn Wolf, "Tools and methodologies for system-level design," Chapter 3 in Luciano Lavagno, Igor L. Markov, Grant Martin, and Louis Scheffer, eds., *Electronic Design Automation for IC System Design, Verification, and Testing*, second edition, Taylor & Francis, 2016.

Marilyn Wolf, *High Performance Embedded Computing: Applications in Cyber-Physical Systems and Mobile Computing*, second Chinese edition, China Machine Press, 2016.

Marilyn Wolf, *Computers as Components: Principles of Embedded Computing System Design*, fourth edition, San Francisco: Morgan Kaufman, 2017.

Marilyn Wolf, *The Physics of Computing*, San Francisco: Morgan Kaufman, 2017.

Marilyn Wolf, "Embedded Computer Vision," in Ha, Soonhoi Ha and Jürgen Teich, *Handbook of Hardware/Software Codesign*, Dordrecht: Springer Netherlands, 2017, pp. 1-14. http://dx.doi.org/10.1007/978-94-017-7358-4_40-1

Dimitrios Serpanos and Marilyn Wolf, *Internet-of-Things (IoT) Systems*, Kluwer, 2018.

Marilyn Wolf, *Smart Camera Design: Algorithms, Architectures, and Art*, Kluwer, 2018.

Marilyn Wolf and Jason Schlessman, "Distributed smart cameras and distributed computer vision," in S. S. Bhattacharyya, E. F. Deprettere, R. Leupers, and J. Takala, *eds.*, *Handbook of Signal Processing Systems*, second edition, Springer, 2019.

Marilyn Wolf, *Embedded Computer Interfacing: Design for the Internet-of-Things (IoT) and Cyber-Physical Systems (CPS)*, Elsevier, 2019.

Marilyn Wolf and Dimitrios Serpanos, *Safe and Secure Cyber-Physical Systems and Internet-of-Things Systems*, Springer, 2020.

Marilyn Wolf, *Computers as Components: Principles of Embedded Computing System Design*, fifth edition, Elsevier, 2022.

Samal, K., Wolf, M. (2024). Machine Learning Components for Autonomous Navigation Systems. In: Pasricha, S., Shafique, M. (eds) Embedded Machine Learning for Cyber-Physical, IoT, and Edge Computing. Springer, Cham. https://doi-org.libproxy.unl.edu/10.1007/978-3-031-40677-5_9

Marilyn Wolf, *Foundations of Computer Engineering*, Morgan Kaufmann, 2025.