Journals Edited:
Journal of Analog Integrated Circuits and Signal Processing (Springer), guest editor for special issue, 2008

Book Chapters:
C.N. Purdy, Modeling and Simulation for MEMS, Chapter 13 in *The Mechatronics Handbook*, Robert H. Bishop, ed., CRC Press, 2002, 13-1--13-18.

Proceedings Edited:
A.Garimella and C. Purdy, Editors, *Proc. 55th IEEE International Midwest Symp. On Circuits and Systems (MWSCAS 2012),* August 5-8, 2012.

F.R. Beyette Jr., H.W. Carter, W-B. Jone, and C.N. Purdy, Editors, *Proc. 48th IEEE International Midwest Symp. On Circuits and Systems (MWSCAS 2005)*, August 7-10, 2005.

R.L. Ewing, H.W. Carter, and C. N. Purdy, Editors, *Proc. 44th IEEE International Midwest Symp. on Circuits and Systems (MWSCAS 2001),* August 14-17, 2001.

Refereed Journal Articles:
R. Krishnan and C. Purdy, Circuit development using biological components: principles, models and experimental feasibility, *International Journal of Analog Integrated Circuits and Signal Processing*, 56, 2008, 153-161.

V. Vallurupalli and C. Purdy, Agent-based modeling and simulation of biomolecular reactions. *Scalable Computing: Practice and Experience* 8 (2), 2007, 185-196.

C. Purdy, G. Lewandowski, J. Hauser, and S. Coppock, Establishing and sustaining a preparing future faculty program in electrical and computer engineering and computer science, *Journal on Excellence in College Teaching* 17 (1&2), 2006, 37-59.

R. Youssif and C. Purdy, Combining genetic algorithms and neural networks to build a signal pattern classifier, *Neurocomputing* 61, 2004, 39-56.

G. Jain and C. Purdy, The analysis of experiments on heuristic algorithms: improving the state of the art, *Congressus Numerantium* 161, 2003, 33-40.

J.W. Hauser and C.N. Purdy, Approximating nonlinear functions with genetic algorithms, *Embedded Systems Programming* 16 (1), February 2003.

D. Gibson, H. Carter, and C. Purdy, The use of hardware description languages in the development of microelectromechanical systems, *International Journal of Analog Integrated Circuits and Signal Processing* 28 (2), Aug. 2001, 173-180.

D. Gibson and C.N. Purdy, Extracting behavioral data from physical descriptions of MEMS for simulation, *International Journal of Analog Integrated Circuits and Signal Processing* 20 (3)

(September 1999), 223-234. Also published in *Journal of VLSI Signal Processing Systems for Signal, Image, and Video Technology* 22 (2) September 1999, 135-146.

C.N. Purdy and R. Swaminathan, On two characterizations of series-parallel graphs, *Ars Combinatorica* 41, 1995, 163--175.

C. (Neaderhouser) Purdy and G. Purdy, The area-time complexity of the greatest common divisor problem: a lower bound, *Information Processing Letters* 34, 1990, 43-46.

C. (Neaderhouser) Purdy and G. Purdy, Networks for greatest common divisor computations, *Congressus Numerantium* 73, 1990, 125-132.

C. N. Purdy and G. Purdy, Minimal forbidden subgraphs, *Congressus Numerantium* 66, 1988, 165--172.

C. (Neaderhouser) Purdy and G. Purdy, Integer division in linear time with bounded fan-in, *IEEE Trans. on Computers* C-36 (5), 1987, 640--644.

Refereed Journal Articles Published Under the Name C. Neaderhouser:
C. Neaderhouser and G. Purdy, On finite sets in E(k) in which the diameter is frequently achieved, *Periodica Mathematica Hungarica* 13, 1982, 253--257.

C. Neaderhouser and G. Purdy, Threshold functions for random hypergraphs, *Utilitas Mathematica* 17, 1980, 179--187.

C. Neaderhouser, Convergence of block spins defined by a random field, *Journal of Stat. Phys.* 22, 1980, 673--684.

C. Neaderhouser, An almost sure invariance principle for partial sums associated with a random field, *Stochastic Processes and their Applications* 11, 1981, 1--10.

C. Neaderhouser, Some limit theorems for random fields, *Comm. Math. Phys.* 61, 1978, 293--305.

C. Neaderhouser, Limit theorems for multiply-indexed mixing random variables, with application to Gibbs random fields, *Annals of Probability* 6, 1978, 207--215.

Publications in Refereed Conference Proceedings:
V. Subbian, N. Niu, and C. Purdy, Work-in-progress: inclusive and evidence-based instruction in software testing education, submitted to *2016 ASEE Conference.*

Akshata Anil Muddebihal and Carla Purdy, Design and implementation of area efficient multi-ported memories with write conflict resolution, to appear in *Proceedings 2015 IEEE Midwest Symposium on Circuits and Systems (MWSCAS 2015).*

Jonathan Lockhart, Carla Purdy, and Phillip Wilsey, Formal methods for safety critical system specification, *Proceedings 2014 Midwest Symposium on Circuits and Systems (MWSCAS 2014).*

Naren Ramesh, George Purdy, Carla Purdy, and Justin Smith, A hardware implementation of Hough Transform based on parabolic duality, *Proceedings 2014 Midwest Symposium on Circuits and Systems (MWSCAS 2014)*.

Chandan Singh, Rashna Seli, and Carla Purdy, Fixing power bugs at RTL stage using PSL assertions, *Proceedings 2014 Midwest Symposium on Circuits and Systems (MWSCAS 2014)*.

Vignesh Subbian and Carla Purdy, A hybrid design methodology for an introductory software engineering course with integrated mobile application development, *Proceedings 2014 ASEE Annual Conference*.

Vignesh Subbian and Carla Purdy, UnLecture: bridging the gap between computing education and software engineering practice, *Proceedings 2014 ASEE Annual Conference*.

Vignesh Subbian and Carla Purdy, UnLecture: a novel active learning based pedagogical strategy for engineering courses, *Proceedings 2014 ASEE Annual Conference*.

Anusha Mantha, George Purdy, and Carla Purdy, Improving reliability in DNA-based computations, *Proceedings 2013 Midwest Symposium on Circuits and Systems (MWSCAS 2013)*.

Vignesh Subbian and Carla Purdy, Redesigning an advanced embedded systems course: a step towards interdisciplinary engineering education*, Proceedings 2013 IEEE Integrated STEM Education Conference (ISEC)*.

Indira Jayaram and C. Purdy, Using constraint graphs to improve embedded systems design, *Proceedings MWSCAS 2012*.

M.N. Ahmed, K. Karimian, and Carla Purdy, Agent-based modeling of molecular self-assembly mechanisms, *Proc. MWSCAS 2011*.

C. Purdy and X. Zhou, Improving a preparing future faculty in engineering program through increased collaboration between faculty in engineering and technology, *Proceedings 2011 ASEE Annual Conference*.

H. Korukonda and C. Purdy, Support for agent based simulation of biomolecular systems, *Proceedings MAICS 2011*, CEUR Workshop Proceedings 710, S. Visa, A. Inoue, A. Ralescu, ed., http://ceur-ws.org, ISSN 1613-0073, pp. 79-84.

S. Koneru and C. Purdy, Implementing the expectation maximization algorithm (EM) for motif finding in hardware, preprint.

R. Karkutla and C. Purdy, Simulation tools for non-homogeneous molecular systems, *Proc. MWSCAS 2010*.

C. Purdy, Evaluating the effectiveness of mentoring doctoral students for academic careers, *Proc. 2010 ASEE Annual Conference*.

E. Deloatch, S. Kerns, L. Morell, C. Purdy, P. Smith, and S. L. Truesdale, promoting diversity in graduate engineering education: the student perspective, *Proc. 2009 ASEE Annual Conference.*

J.-H. Lee, I. Papautsky, and C. Purdy, Experiences and benefits for a graduate student in a preparing future faculty program in engineering, *Proc. 2009 ASEE Annual Conference.*

H. Ramaswamy and C. Purdy, An extended library of hardware modules for genetic algorithms, with applications to DNA sequence matching, *Proc. MWSCAS 2008.*

S. Mailavaram, A. Desai, and C. Purdy, Intelligent tools for the study of biological pathways, *Proceedings MAICS 2008.*

Ken Burbank, Eugene DeLoatch, Duane Dunlap, Norman Egbert, Barry Farbrother, Randall Holmes, Donald Keating, Timothy Lindquist, Albert McHenry, Mohammad Noori, Roger Olson, Harvey Palmer, Carla Purdy, David Quick, Joseph J. Rencis, Mark Schuver, Edmund Segner, Mark Smith, Thomas Stanford, Edward Sullivan, Joseph Tidwell, Stephen Tricamo, Samuel Truesdale, David Woodall. Ensuring a strong U.S. engineering workforce for technology innovation and competitiveness: a partnership between academia and industry, *Proc. 2008 ASEE Annual Conference*.

E. Deloatch, S. Kerns, L. Morell, C. Purdy, P. Smith, and S. L. Truesdale, Implementing a multi-faceted approach for promoting diversity in graduate engineering education, *Proc. 2008 ASEE Annual Conference*.

S. Subramanian and C. Purdy, Protein structure alignment using a generalized alignment model, *Proc. ANNIE 2007,* November 2007, St. Louis, MO, published in *Smart Systems Engineering: Computational Intelligence in Architecting Complex Engineering Systems, ASME Press Series on Intelligent Engineering Systems through Artificial Neural Networks, Vol. 17,* C.H. Dagli, A.L. Buczak, D.L. Enke, M. Embrechts, and O. Ersoy, ed., New York, ASME Press, 2007, pp. 87-92.

Srinivasan Raghuraman and Carla Purdy, Hierarchical implementation and performance analysis of Verilog-AMS model of BSIM3v3.3 transistor, *Proc. 2007 IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2007)*, August 2007, Montreal, Canada.

Eugene M. DeLoatch, Sherra Kerns, Lueny Morell, Carla Purdy, Paige Smith, Samuel L. Truesdale, and Barbara Waugh, Articulating a Multifaceted Approach for Promoting Diversity in Graduate Engineering Education, *Proc. 2007 ASEE Annual Conference*, Honolulu, HI, June 2007.

D.A. Keating, T.G. Stanford, J.D. Bardo, D.D. Dunlap, D.R. Depew, G.R. Bertoline, M.P. Stephens, M.T. Schuver, E.M. DeLoatch, A.L. McHenry, T. Lindquist, J.P. Tidwell, K.G. Landis, H.J. Palmer, M. Smith, R.E. Morrison, L.A. Hammond, D.H. Quick, R.N. Olson, S.L. Truesdale, J.M. Snellenberger, S.J. Tricamo, M. Noori, E. Sullivan, A. Saxena, J.J. Rencis, P. Bishop, C. Purdy, E. Segner, and R.J. Bennett, Enabling a strong U.S. engineering workforce for technological innovation: a national partnership in graduate professional education with industry

to enhance competitiveness and economic development, *Proc. 2007 ASEE Annual Conference*, Honolulu, HI, June 2007.

R.S. Youssif and C.N. Purdy, Engineering the architectural evolution of an experimental pattern classification system, *Proc. Midwest Artificial Intelligence and Cognitive Science Conference (MAICS)*, Chicago, IL, April 2007.

R. Krishnan and C. Purdy, Comparison of simulated annealing and genetic algorithm for characterizing and controlling biological pathways, *Proc. ANNIE 2006*, November 2006, St. Louis, MO, published in   *Smart Systems Engineering: Infra-Structure Systems Engineering, Bio-Informatics and Computational Biology, and Evolutionary Computation, ASME Press Series on Intelligent Engineering Systems through Artificial Neural Networks, Vol. 16,* C.H. Dagli, A.L. Buczak, D.L. Enke, M. Embrechts, and O. Ersoy, ed., New York, ASME Press, 2006, pp. 285-292.

J.W. Hauser and C. Purdy, Designing a genetic algorithm for function approximation for embedded and ASIC applications, *Proc. 2006 IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2006)*, August 2006, San Juan, Puerto Rico.

G. Purdy, C. Purdy, and K.K. Vedantam, Two binary algorithms for calculating the Jacobi symbol and a fast systolic implementation in hardware, *Proc. 2006 IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2006)*, August 2006, San Juan, Puerto Rico.

R. Krishnan and C. Purdy, Design, modeling and control of the TNFα-mediated NF-κB signal transduction pathway, *Proc. Ohio Collaborative Conference on Bioinformatics,* June 2006.

V. Vallurupalli and C. Purdy, Agent-based modeling and simulation of biomolecular reactions, *Proc. Ohio Collaborative Conference on Bioinformatics*, June 2006.

Isadore T. Davis, Eugene M. DeLoatch, Sherra Kerns, Lueny Morell, Carla Purdy, Samuel L. Truesdale, and Paige Smith, Best practices for promoting diversity in graduate engineering education, *Proc. 2006 ASEE Annual Conference*, Chicago, IL, June 2006.

R. Krishnan and C. Purdy, Bio-inverter model and interface to digital hardware*, Proc. 2005 IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2005)*, Cincinnati, OH, August 2005.

J. Athreya, M. Mailavaram, and C. Purdy, Realization of cellular neural networks from a neuron component library, *Proc. 2005 IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2005)*, Cincinnati, OH, August 2005.

S. Narayanan and C. Purdy, Hardware implementation of genetic algorithm modules for intelligent systems, *Proc. 2005 IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2005)*, Cincinnati, OH, August 2005.

V. Srinivasan, J. Athreya, M. Mailavaram, and C. Purdy, Physical and HDL designs for a library of neuron components for use in intelligent systems, *Proc. 2005 IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2005)*, Cincinnati, OH, August 2005.

C. Purdy and M. Wasburn, Diversity in Engineering Education--What are the perceived issues?, *Proc. ASEE 2005 Conference,* Portland, OR, June 2005.

E. Namboodiri, P. Harten, and C. Purdy, Agent based modeling of environmental systems, *Proceedings of the Midwest Artificial Intelligence and Cognitive Science Conference (MAICS),* Dayton, OH, April 2005.

S. Nibhanupudi, R. Youssif, and C. Purdy, Data-specific signal denoising using wavelets, with applications to ECG data, *Proc. MWSCAS 2004*, Hiroshima, Japan, July 2004.

C. Purdy and R. Kane, Achieving diversity in graduate engineering education--what are the major issues?, *Proc. ASEE 2004 Conference*, Salt Lake City, UT, June 2004.

C. Purdy, S. Neaderhouser, H. Abdel-Aty-Zohdy and R. Ewing, Biomolecular computing paradigms, *Proc. 2003 IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2003)*, Special Session on Methods of Biomolecular Computing, Cairo, Egypt, December 2003.

R. Krishnan and C. Purdy, Microarrays for biocomputing, *Proceedings of MWSCAS 2003*, Special Session on Methods of Biomolecular Computing, Cairo, Egypt, December 2003.

B.K. Bharkada, J. Hauser, and C.N. Purdy, Efficient FPGA implementation of a generic function approximator and its application to neural net computation, *Proceedings of MWSCAS 2003*, Cairo, Egypt, December 2003.

R.S. Youssif and C.N. Purdy, Comparing hybrid versus single strategy intelligent systems in signal pattern classification, *Proceedings of MWSCAS 2003*, Cairo, Egypt, December 2003.

R.S. Youssif and C.N. Purdy, Fuzzy similarity measures for signal pattern classification, *Proc. Midwest Artificial Intelligence and Cognitive Science Conference 2003 (MAICS03),* Cincinnati, OH, April 2003.

C. Purdy, R. German, and U. Ghia, Sustaining a multidisciplinary summer research program for women undergraduates, *Proc. WEPAN 2003 Annual Conference*, Chicago, IL, June 2003.

C. Purdy, P. Bishop, J. Fried, A. Kukreti, and G. Lewandowski, A model preparing future faculty program for engineering, *Proc. 2003 ASEE Conference*, Nashville, TN, June 2003.

C. Purdy, R. German, U. Ghia, L. Hogeland, and B. Kinkle, Improving the research experience of graduate students in engineering through mentor training, *Proc. 2003 ASEE Conference*, Nashville, TN, June 2003.

R. Youssif and C. Purdy, Combining genetic algorithms and neural networks to build a signal pattern classifier, *Proc. HIS02 (Hybrid Intelligent Systems 2002)*, Chile, Dec. 2002.

R. Youssif and C. Purdy, A multistrategy signal pattern classifier, *Proc. Midwest Symp. on Circuits and Systems (MWSCAS 2002)*, Tulsa, OK, August 2002.

L. Gao, B. Billups, and C. Purdy, Predicting the performance of FPGA routing algorithms, invited paper, *Proc. Midwest Symp. on Circuits and Systems (MWSCAS 2002)*, Tulsa, OK, August 2002.

S.-E. Park, A. Chowdhery, and C. Purdy, The agent-based call setup protocol for wireless PCS networks, *Sixth World Multiconference on Systemics, Cybernetics and Informatics (SCI 2002)*, Orlando, FL, July 14-18, 2002.

J.W. Hauser and C.N. Purdy, Efficient function approximation for embedded and ASIC applications, *Proc. International Conference on Computer Design (ICCD 2001)*, Austin, TX, September 2001.

J.W. Hauser and C.N. Purdy, Approximating functions for embedded and ASIC applications, *Proc. Midwest Symp. on Circuits and Systems (MWSCAS 2001)*, Dayton, OH, August 2001, 478-481.

S.-E. Park and C. Purdy, Parameterized mobile action generator in a wireless PCS network, *Proc. 9th International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS 2001),* August 2001, Cincinnati, Ohio, pp. 323-330.

G. Lewandowski and C. Purdy, Training Future Professors: The preparing future faculty (PFF) program in electrical and computer engineering and computer science at the University of Cincinnati, *Proceedings 2001 ASEE Conference*, Albuquerque, NM, June 2001.

R. Ewing,G.Lamont,C.Brothers,M.Oxley,F. Beyette, Jr., J. Boyd, H. Carter,C. Purdy, H. Abdel-Aty-Zohdy,S. Bibyk,Y. Zheng, and K. Thirunayarayan, An interactive video course in multidisciplinarity and collaborative design for systems on a chip, *Proc. International Conference on Microelectronics Systems Education (MSE2001)*, Las Vegas, NV, June 2001, 87-88.

S. Park and C. Purdy, Modeling parameterized mobile actions in a wireless PCS network, *Proceedings IEEE International Conference on Third Generation Wireless and Beyond (3Gwireless'01)*, San Francisco, CA, May-June 2001, 60-66.

D. Curtin, D. Gibson, G. Lewandowski, L. Meeden, C. Purdy, The nuts and bolts of academic careers: a primer for students and beginning faculty, *Proc. 32nd Technical Symposium on Computer Science Education (SIGCSE2001),* Charlotte, NC, Feb. 2001.

J.W. Hauser and C.N. Purdy, Sensor Data Processing Using Genetic Algorithms, *Proc. Midwest Symp. on Circuits and Systems*, August 2000.

F. Beyette, Jr. and C.N. Purdy, Teaching modules for a class in mechatronics, *Proc. European Workshop on Microelectronics Education* (EWME2000), May 2000.

D. Hertweck, D. Nica, S. Park, and C. Purdy, Standard statistical and visualization tools for heuristic algorithm analysis, *Proc. Collaborative Technologies Workshop*, R.L. Ewing and H. Carter, Eds., Oakland Univ., Rochester, MI, Nov. 1999, 60-63.

F. Beyette, Jr. and C.N. Purdy, Tools for integrating multidomain technologies into microelectronic circuit design curricula, *Proc. International Conference on Microelectronic Systems Education (MSE99)*, IEEE Computer Society, July 1999, 86-87.

D. Gibson, A. Hare, F. Beyette, Jr., and C. Purdy, Design automation of MEMS systems using behavioral modeling, *Proc. Ninth Great Lakes Symposium on VLSI*, Ann Arbor, Mich. (ed. R.J. Lomax and P. Mazumder), March 1999, 266-269.

D. Hertweck, M. Nica, S. Park, and C.N. Purdy. Standard data representations for VLSI algorithm development, *Proc. Eighth Great Lakes Symposium on VLSI*, Special Session on Data Modeling and Data Management for Electronic Design Automation, Lafayette, LA, Feb. 1998 (ed. M.A. Bayoumi and G. Jullien), 446-451.

D. Gibson and C.N. Purdy, Extracting behavioral data from physical descriptions of MEMS for simulation, *CERC/VIUF Workshop*, Dayton, OH, Dec. 1997. Extended version to appear in International Journal of Integrated Circuits and Signal Processing.

C.N. Purdy, Significant microelectronics system design experience for a heterogeneous class of CS, CE, and EE students, *Proc.International Conference on Microelectronics Systems Education (MSE97),* IEEE, July 1997.

J.W. Hauser and C.N. Purdy, Estimation of lateral acceleration by polynomial approximation, *Proceedings of 1996 National Aerospace and Electronics Conference* (published by IEEE), 844-851.

T.D. Bennett, G.J. Grebowski, C.N. Purdy, and J.A. Lookadoo, A single-chip deinterleaving Reed-Solomon decoder for high-performance CCSDS telemetry, *1992 National Telesystems Conference Proceedings* (published by IEEE), 12-19--12-21.