

PUBLICATIONS

ALICE M. AGOGINO

Peer-Reviewed Journal Publications

J-1. "[Notch Effects, Stress State and Ductility.](#)" *ASME Trans., Journal of Engineering Materials and Technology*, Oct. 1978, pp. 348-355. [Download](#) pdf of paper. [Citations](#)

J-2. "[INFORM: An Architecture for Expert-Directed Knowledge Acquisition.](#)" (with E. A. Moore), *International Journal of Man- Machine Studies*, Academic Press, Ltd (ISSN 0020-7373), Vol. 26, No. 2, February 1987, pp. 213-230. (Also published as book chapter in *Knowledge Acquisition Tools for Expert Systems*, ed. by J. Boose and B. Gaines, Vol. 2, pp. 227-244, Academic Press, 1988.) [Download](#) pdf of paper. [Citations](#)

J-3. "[IDES: Influence Diagram Based Expert System.](#)" (with A. Rege), *Mathematical Modelling*, Vol. 8, 1987, pp. 227-233. [Download](#) pdf of paper. [Citations](#).

J-4. "[Techniques for Integrating Qualitative Reasoning and Symbolic Computation in Engineering Optimization.](#)" (with A. Almgren), *Engineering Optimization*, Vol. 12(2), Sept./Oct. 1987, pp. 117-135. [Download](#) pdf of paper. [Citations](#)

J-5. "[Multiobjective Hydraulic Cylinder Design.](#)" (with N. Michelena), *ASME Trans., Journal of Mechanisms, Transmissions, and Automation in Design*, Vol. 110, March 1988, pp. 81-87. [Citations](#)

J-6. "[Topological Framework for Representing and Solving Probabilistic Inference Problems in Expert Systems.](#)" (with A. Rege), *IEEE Trans., Journal of Systems, Man, and Cybernetics (ISSN: 0018-9472)*, Vol. 18 (3), May/June 1988, pp. 402-414. [Download](#) pdf of paper. [Citations](#)

J-7. "[Innovative Design of Mechanical Structures from First Principles.](#)" (with J. Cagan), *AI in Engineering, Design, Analysis, and Manufacturing*, Vol. 1 (3), 1987, pp. 169-189. [Download](#) pdf of paper. [Citations](#).

J-8. "[Multiple Sensor Expert System for Diagnostic Reasoning, Monitoring, and Control of Mechanical Systems.](#)" (with S. Srinivas and K. Schneider), *Mechanical Systems and Signal Processing*, Vol. 2(2), 1988, pp. 165-185. [Download](#) pdf of paper. [Citations](#)

J-9. "A Generalization and Correction of the Welded Beam Optimal Design Problem Using Symbolic Computation," (with A. Almgren), *ASME Journal of Mechanisms, Transmissions, and Automation in Design*, Vol. 111 (1), March 1989, pp. 137-140. [Citations](#).

J-10. "[Theory of Design: An Optimization Perspective.](#)" (with P. Jain), *Journal of*

Mechanism and Machine Theory, Vol. 25, No. 3, 1990, pp. 287-303. [Download](#) pdf of paper. [Citations](#)

J-11. "[Use of Influence Diagrams and Neural Networks in Modeling Semiconductor Manufacturing Processes](#)," (with F. Nadi and D. Hodges), *IEEE Transactions on Semiconductor Manufacturing*, Vol. 4, No. 1, Feb. 1991, pp. 52-58. [Citations](#)

J-12. "Design Capture and Information Management for Concurrent Design," (with S. Bradley), *International Journal of Systems Automation: Research & Applications*, Vol. 1, No. 2, 1991, pp. 117-141. [Citations](#)

J-13. "[Inducing Constraint Activity in Innovative Design](#)", (with J. Cagan) *AIEDAM (Artificial Intelligence in Engineering Design, Analysis and Manufacturing)*. Vol. 5, No. 1, pp. 47-61. [Download](#) pdf of paper. [Citations](#)

J-14. "[Dimensional Variable Expansion - A Formal Approach to Innovative Design](#)", (with J. Cagan), *Research in Engineering Design*, Vol. 3, No. 3, 1991, pp. 75-85. [Download](#) pdf of paper. [Citations](#)

J-15. "[Decision-Analytic Methodology for Cost- Benefit Evaluation of Diagnostic Testers](#)," (with O. Nour-Omid, W. Imano and S.S. Wang), *IIE Trans.*, Vol. 24, No. 1, March 1992, pp. 39-54. [Download](#) pdf of paper. [Citations](#)

J-16. "[Global Optimization Using the Multistart Method](#)," (with P. Jain), *ASME Trans. Journal of Design.*, Vol. 115, No. 4, Dec. 1993, pp. 770-775. (Also published in *Advances in Design Automation - 1989*, Vol. 2, DE-Vol. 19-2; *Proceedings of the 1989 ASME Design Automation Conference*, Sept. 17-20, 1989, Montreal, Canada, 1989, pp. 39- 44.) [Download](#) pdf of journal. [Citations](#)

J-17. "[Real-Time Expert Systems for Fault Tolerant Supervisory Control](#)", (with K. Ramamurthi), *ASME Transactions, Journal of Systems, Dynamics and Control*, Vol. 115, June 1993, pp. 219-227. (Also published in *Proceedings of the 1988 ASME International Computers in Engineering Conference*, Vol. 2, pp. 333-339.) [Citations](#)

J-18 "[A Structural and Behavioral Reasoning System for Diagnosing Large-Scale Systems](#),"(with R.K. Paasch), *IEEE Expert*, Vol. 8, No. 4, Aug. 1993, pp. 31-36. (Best of 5 papers from CAIA, previously published in *Proceedings of the CAIA-92*, March 2-6, 1992, Monterey, California, IEEE Computer Society, 1992, pp. 74-80.) [Download](#) pdf copy of paper. [Citations](#)

J-19 "[Formal Solution of N-type Taguchi Parameter Design Problems with Stochastic Noise Factors](#),"(with N. Michelena), *ASME Trans., Journal of Mechanical Design*, Vol. 116, No. 2, June 1994, pp. 501-507. P-31. (Also published in *ASME '91 Design Theory and Methods*, ASME DE- Vol. 31, 1991, pp. 13-20.) [Download](#) pdf of paper. [Citations](#)

J-20 "[Monotonic Influence Diagrams: Foundations and Application to Optimal Design](#),"

(with N. Michelena), *Engineering Optimization*. Vol. 21, No. 2, pp. 79-97, July 1993. [Download](#) pdf of paper. [Citations](#)

J-21 "[Monotonic Influence Diagrams: Extension to Stochastic Programming and Application to Probabilistic Design](#)," (with N. Michelena), *Engineering Optimization*, Vol. 21, No. 2, pp. 99-120, July 1993.

J-22 "[An Intelligent Real Time Design Methodology for Component Selection](#)," (with S. Bradley). *ASME Trans., Journal of Mechanical Design*, Dec. 1994, Vol. 116, pp. 980-988. (Also published in *ASME '91 Design Theory and Methods*, ASME DE-Vol. 31, 1991, pp. 201-208; Winner of ASME DTM '91 Best Paper Award). [Download](#) pdf of published version. [Citations](#).

J-23 "[The Impact and Instructional Benefit of Using Multimedia Case Studies to Teach Engineering Design](#)," (with Sherry Hsi), *Journal of Educational Hypermedia and Multimedia*, Association for the Advancement of Computing in Education (ISSN 1055-8896), Vol. 3, No. 3/4, 1994, pp. 351-376. [Citations](#)

J-24 "[A Case- based Conceptual Design Information Server for Concurrent Engineering](#)," (with W.H. Wood), *CAD (Computer-Aided Design) Journal*, Vol. 28, No. 5, pp. 361-369, 1996. [Download](#) pdf of paper. [Citations](#)

J-25 "[Engineering Courseware Content and Delivery: the NEEDS Infrastructure for Distance-Independent Education](#)," (with W.H. Wood), *Journal of the American Society for Information Science*. Vol. 47, No. 11, 1996, pp. 863-869. [Download](#) pdf of paper. [Citations](#)

J-26 "[Text Analysis for Constructing Design Representations](#)," (with A. Dong), *Journal of Artificial Intelligence in Engineering*, Vol. 11 (2), pp. 65-75, 1997. (Previously published in *Artificial Intelligence in Design '96*, Kluwer Academic Publishers, pp. 21-38, 1996. Winner "[AI in Design 1996](#)" Best Paper" award.) [Citations](#)

J-27 "[Managing Design Information in Enterprise-Wide CAD using 'Smart Drawings'](#)," (with A. Dong), *CAD (Computer-Aided Design) Journal*, special issue on network- centric CAD, Vol. 30 (6), pp. 425-435, 1998. [Download](#) final pdf of paper. [Citations](#)

J-28 "[The National Engineering Delivery System \(NEEDS\): A Multimedia Digital Library of Courseware](#)," (with B. Muramatsu), *International Journal on Engineering Education*, Vol. 13 No. 5, 199, 1997, pp. 333-340. [Citations](#).

J-29 "[Examples of Freshman Design Education](#)," (with Sheppard, S., R. Jenison, M. Bereton, L. Bucciarelli, J. Dally, J. Demel, C. Dym, D. Evans, R. Faste, M. Henderson, P. Minderman, J. Mitchell, A. Oladipupo, M. Picket-May, R. Quinn, T. Reagan, and J. Wujek), *International Journal on Engineering Education*, vol. 13, no. 4. pp. 248-261, 1997. [Citations](#)

J-30 "[Bridging Diverse Institutions, Multiple Engineering Departments, and Industry: A Case Study in Developing an Assessment Plan for the Synthesis Coalition](#)," (with Flora

McMartin and Eric Van Duzer), *Journal of Engineering Education*, Vol. 87, No. 2, April 1998, pp. 157-163. [Citations](#)

J-31 "[A Web-based Module for Teaching Middle School Students Engineering Design with Simple Machines](#)," (with A. McKenna), *Journal of Engineering Education*, Oct. 1998, pp. 437-444. (Updated version of Proceedings Paper P-56; Won 'best paper' award at FIE '97.) [Citations](#)

J-32 "[Fuzzy Belief Nets](#)," (with K. Goebel), *International Journal of Uncertainty, Fuzziness, and Knowledge Systems*, Vol. 8, No.4, pp.453-469, 2000. [Citations](#).

J-33 [Sensor Validation and Fusion for Gas Turbine Power Plants Using Fuzzy Techniques](#)," (with K. Goebel), *Mechanical Systems and Signal Processing*, pp. 145-146, 2001. [Citations](#)

J-34 "[Sensor Validation and Fusion for Automated Vehicle Control Using Fuzzy Techniques](#)," (with K. Goebel), *ASME Trans, Journal of Dynamic Systems, Measurement and Control*, Vol. 123, pp. 143-144, March 2001. [Citations](#)

J-35 "[A Methodology for Intelligent Sensor Measurement, Validation, Fusion, and Fault Detection for Equipment Monitoring and Diagnostics](#)," (with S. Alag and M. Morjaria), *AIEDAM (Artificial Intelligence for Engineering Design, Analysis and Manufacturing)*, Special Issue on AI in Equipment Service, Vol. 15, No. 4, April 2001, pp. 307-319. [Citations](#)

J-36 "[Guest Editorial](#)," (with Piero Bonissone, Kai Goebel and George Vachtsevanos,) *AIEDAM (Artificial Intelligence for Engineering Design, Analysis and Manufacturing)*, Special Issue on AI in Equipment Service, Vol. 15, No. 4, April 2001, pp. 265-266. 265-266.

J-37 "[Modeling Engineering Information Needs](#)," (with Song, Shuang and Andy Dong), *Journal of Computing and Information Science in Engineering*, 2, No. 3, Sept. 2002, pp. 199-207. [Citations](#)

J-38 "[A Document Analysis as a Means for Predicting Design Team Performance](#)," (with A. Dong, and A.W. Hill), *ASME Journal of Mechanical Design*, Vol. 126, May 2004, pp. 378-385. [Citations](#).

J-39 "[Perceptions of the Design Process: An Examination of Gendered Aspects of New Product Development](#)", (with Newman, C., M. Bauer, and J. Mankoff), *International Journal of Engineering Education*, Vol. 20, No.2, pp. 452-460, 2004. [Citations](#).

J-40 "[Supporting Mechanical Reasoning with a Representationally-Rich Learning Environment](#)", (with A. McKenna), *Journal of Engineering Education*, ASEE, Vol. 93, No. 2, pp. 97-104, April 2004. [Citations](#).

J-41 "[Decision-Based Conceptual Design: Modeling and Navigating Heterogeneous](#)

- [Design Space,](#) (with W.H. Wood) *ASME Journal of Mechanical Design*, Vol. 127, Issue 1, Jan. 2005, pp. 2-11. [Citations](#).
- J-42 "[Resonant Accelerometer with a Two-stage Microleverage Mechanisms Fabricated by SOI-MEMS Technology,](#)" (with Su, S.X.P., H.S. Yang and A.S. Hou), *IEEE Sensors Journal*, Dec. 2005. [Proof Pre-Print \(pdf\)](#). [Citations](#).
- J-43 "[Engineering Design Thinking, Teaching, and Learning,](#)" (with C. Dym, O. Eris, D.D. Frey, and L.J. Leifer), *Journal on Engineering Education*, ASEE, Jan. 2005, v. 94, no. 1, pp. 103-120. [Citations](#).
- J-44 "[Triangulation of Indicators of Successful Student Design Teams,](#)" (with S. Song and J. Hey). *International Journal of Engineering Education*, ISSN 0949-149X, vol. 22 (3), 2006, pp. 617-625. [Citations](#).
- J-45 "Intelligent Office Lighting: Demand-Responsive Conditioning and Increased User Satisfaction", (with J. Granderson). *LEUKOS Journal*, IESNA (Illuminating Engineering Society of North America) vol. 2 (3), Jan. 2006. [Pre-publication version \(pdf\)](#). [Citations](#).
- J-46 "[Designing Mobile Digital Library Services for Pre-Engineering and Technology Literacy,](#)" (with J. Hey, C. Newman, J. Sandhu, C. Daniels, and J.-S. Hsu), *International Journal of Engineering Education*, [Special Issue on Mobile Technologies for Engineering Education](#), Vol. 23 (3), pp. 441-453, 2007. [Citations](#).
- J-47 "[Self-Reflection: Lessons Learned in a New Product Development Class,](#)" (with J.H. Hey, A.P Van Pelt and S. Beckman), *Journal of Mechanical Design*, ASME, Vol. 129, No. 7, July 2007, pp. 668-676. [Citations](#)
- J-48 "[Enabling and Characterizing Twenty-First Century Skills in New Product Development Teams,](#)" (with C. Cobb, S. Beckman and L. Speer), *International Journal of Engineering Education*, Vol. 24 (2), February 2008, pp. 420-433. [Citations](#).
- J-49 "[Analogies and Metaphors in Creative Design,](#)" (with J. Hey, J. Linsey, and K.L. Wood), *International Journal of Engineering Education*, Vol. 24 (2), February 2008, pp.283-294. [Citations](#).
- J-50 "[Tangible Interactions in a Digital Age: Medium and Graphic Visualization in Design Journals,](#)" (with L. Oehlberg and K. Lau), *Engineering Design, Automation and Manufacturing (AIEDAM)*, Vol. 23 (3), 2009, pp. 237-249. [Citations](#).
- J-51 "[Sketching in Design Journals: An Analysis of Visual Representations in the Product Design Process,](#)" (with K. Lau and L. Oehlberg), *Engineering Design Graphics Journal*, Vol. 73 (3), pp. 23-29, 2009. (Updated version of P-127.) [Citations](#).
- J-52 "[Sustainable Product Design: Designing for Diversity in Engineering Education](#)" (with L. Oehlberg and R. Shelby), *International Journal of Engineering Education*, No. 2 of Vol. 26, 2010, pp. 489-498. ([Updated version of P-131.](#)) [Citations](#).

- J-53 "[Hierarchical Component-Based Representations for Evolving Micro-electromechanical Systems Designs](#)" (with Y. Zhang), *AI EDAM (AI in Engineering Design, Automation and Manufacturing)*, Vol. 25, 2011, pp. 41-55 [Citations](#).
- J-54 "[Case-based Reasoning for Evolutionary MEM Design](#)" (with C.L. Cobb), *ASME Journal of Computing and Information Science in Engineering*, Vol. 10 (3), September 2010, pp. 031005-1-031005-10. [Pre-publication version of paper](#). [Citations](#)
- J-55 "[Control of a Wireless-Networked Lighting System in an Open-plan Office](#)", (with Y.-J. Wen), *Journal of Lighting Research and Technology*, Vol. 43 (2), June 2011, pp. 235-248. [Citations](#). Won the Leon Gaster Best Paper Award for Lighting Technology, 2011.
- J-56 "[Interactive Hybrid Evolutionary Computation for MEMS Design Synthesis](#)", (with Y. Zhang), *Mathematics and Computers in Simulation*. (Journal version of book chapter B-15).
- J-57 "[Personalized Dynamic Design of Networked Lighting for Energy-Efficiency in Open-Plan Offices](#)" (with Y.-J. Wen), *Energy and Buildings*, Vol. 43 (8), August 2011, pp. 1919-1924. [Citations](#).
- J-58 "[Intelligent Support for Product Design: Looking Backward, Looking Forward](#)", (with C.C. Hayes, A. Goel, Irem Tumer, W. Regli), *Journal of Computing and Information Science in Engineering*, ASME, Vol. 11 (2) June 2011, pp. 021007-1/9. [Citations](#).
- J-59 "[Diversity in Design Teams: An Investigation of Learning Styles and their Impact on Team Performance and Innovation](#)," (with K. Lau and S. Beckman), *International Journal of Engineering Education*, Special Issue on Design Education: Innovation and Entrepreneurship, Vol. 28, No. 2, 2012, pp. 293-301.
- J-60 "[Teaching Human-Centered Design Innovation across Engineering, Humanities and Social Sciences](#)," (with L. Oehlberg, I. Leighton, and B. Hartmann), *International Journal of Engineering Education*, Vol. 28, No. 2, 2012, pp. 484-491.
- J-61 "[Mobile and Augmented Reality Cyberlearning with the Engineering Pathway Digital Library](#)," (with K. Ryokai and L. Oehlberg), *International Journal of Engineering Education*, Vol. 28, No. 2, 2012, pp. 1119-1126.
- J-62 "[Hybrid Evolutionary Optimal MEMS Design](#)," (with Y. Zhang), *International Journal of Advanced Manufacturing Technology*, Vol. 63, Issue 1-4, pp. 305-317, Springer, DOI 10.1007/s00170-012-3908-7, 2012.
- J-63 "[Partnering with the Pinoleville Pomo Nation: Co-Design Methodology Case Study for Creating Sustainable, Culturally Inspired Renewable Energy Systems and Infrastructures](#)," (with R. Shelby and Y. Perez), *Sustainability Journal*, Special Issue titled: [Changing the Energy Systems to Renewable Energy Self-Sufficiency](#), Vol. 4 No. 5, 2012, pp. 794-818. doi:10.3390/su4050794.

J-64 "[Communicating Human-Centered Design Research: Empirical Study of the Design Community of Practice](#)," (with Roschuni, C., E. Goodman), Special Issue on Studying and Supporting design Communication, *Journal of Artificial Intelligence for Engineering Design, Analysis and Manufacturing*, Vol. 27, 2013, pp. 143-154. [Pre-publication version](#).

J-65 "[Off the Paved Paths: Exploring Nature with a Mobile Augmented Reality Learning Tool](#)", (with K. Ryokai), *Journal of Mobile HCI (IJMHCI)*, Vol 5 (2), April 2013, pp. 21-49. doi:10.4018/jmhci.2013040102. [Pre-publication version](#).

J-66 "What Alumni Value from New Product Development Education: A Longitudinal Study," (with Cobb, C.L. J. Hey, S.L. Beckman and S.-Y. Kim), *Advances in Engineering Education*, special issue on Innovation and Entrepreneurship, ASEE, in press, 2015.

J-67 "[Analysis of Collaborative Design Networks: A Case Study of Open IDEO](#)", (with M. Fuge, K. Tee, and N. Maton), *Journal of Computing and Information Science in Engineering (JCISE)*, **14** (2) 2014. doi:10.1115/1.4026510. [Pre-publication version](#).

J-68 "[Sensor-Based Predictive Modeling for Smart Lighting in Grid-Integrated Buildings](#)", (with C. Basu, J. Caubel, K. Kim, E. Cheng, A. Dhinakaran, R. Martin), *IEEE Sensors*, special issue on Sensing Technologies for Intelligent Urban Infrastructures, IEEE, Vol. 14 (12), December 2014, pp. 4216-4229. 10.1109/JSEN.2014.2352331

J-69 "[Machine Learning Algorithms for Recommending Design Methods](#)", (with M. Fuge, B. Peters), *ASME Journal of Mechanical Design*, **136** (10), Oct. 2014 (MD-14-1013; doi: 10.1115/1.4028102). [Pre-publication version](#).

J-70 "[Pattern Analysis of IDEO's Human-Centered Design Methods in Developing Regions](#)" (with M. Fuge), Vol. 137 (7), MD-14-1571 in the *ASME Journal of Mechanical Design*, 2015. [Pre-publication version](#).

Peer-Reviewed Foreign Language Journals

F-1. "Topological Framework for Representing and Solving Probabilistic Inference Problems in Expert Systems," (with A. Rege), *Computer Systems and Control* (in Russian), Institute of Systems and Control, Soviet Academy of Science, Vol. 2, 1990, pp. 17-30. (Foreign translation of journal publication J-6)

F-2. "Calibration of Fuzzy Linguistic Variables for Expert Systems," (with P. Jain), in *Computer Systems and Control* (in Russian), Institute of Systems and Control, Soviet Academy of Science, Vol. 3, 1990, pp. 37- 45. (Foreign translation of conference proceedings paper P-12.)

Peer-Reviewed Books or Book Chapters

B-1. "Meta-Design: Reflections on a Graduate Course in Design Theory and

Methodology," (with J. Cagan and M.J. Molezzi), *Design Theory '88*, (eds., S.L. Newsome, W.R. Spillers, and S. Finger) Springer-Verlag Publishers, 1989, pp. 18-28.

[Citations](#)

B-2. "Reasoning about Mechanical Structures from First Principles," in *IMACS Transactions on Scientific Computation - 1988*, (with J. Cagan), ed. by J.M. David, R. Huber, J.P. Krivine and C. Kulikowski, Vol. 2: AI and Expert Systems in Scientific Computation, J.C. Baltzer AG, Scientific Publishing Company, Wettsteinplatz 10, CH-4058 Basel, Switzerland, pp. 91-98, 1989. [Citations](#)

B-3. "Real Time Influence Diagrams for Monitoring and Controlling Mechanical Systems," (with K. Ramamurthi) in *Influence Diagrams, Belief Nets and Decision Analysis* (ed., R.M. Oliver and J.Q. Smith), John Wiley & Sons, 1990, Chap. 9, pp. 199-228.

[Citations](#)

B-4. "[Inducing Optimally Directed Non-Routine Designs](#)", (with J. Cagan) in [Modeling Creativity and Knowledge-Based Creative Design](#), (Gero, J.S. and M.L. Maher, eds.), Lawrence Erlbaum Associates, 1993, pp. 273-293. [Citations](#).

B-5. *Design for Manufacture: Reducing Life Cycle Costs While Improving Time to Market and Product Quality*, Agogino, A.M. (editor), ASME, DE-Vol. 51, 1992.

B-6 [Information Technology \(IT\)-Based Educational Materials: Workshop Report with Recommendations](#), National Academy Press, 2004. ([Committee on Engineering Education](#))

B-7 [The Engineer of 2020: Visions of Engineering in the New Century](#), National Academy Press, 2004. ([Committee Report](#)) [Citations](#)

B-8 "[Optimized Design of MEMS by Evolutionary Multi-objective Optimization with Interactive Evolutionary Computation](#)," (with R. H. Kamalian and H. Takagi), *Lecture Notes in Computer Science*, Springer-Verlag GmbH ISSN: 0302-9743, vol. 3103, pp. 1030 - 1041, Feb., 2004. Archival version of P-87. [Citations](#)

B-9 "[Implementation of Quality Evaluation for Web-based Courses and Digital Learning Resources](#)," (with X. Teng, B. Muramatsu, J.W. Zhang, J.G. Tront, and F. McMartin), *Lecture Notes in Computer Science*, Eds., Wenyin Liu, Yuanchun Shi, Qing Li, Springer-Verlag GmbH, ISBN: 3-540-22542-0, vol. 3143, p. 379, 2004. Archival version of P-92. See [Abstract](#). [Citations](#)

B-10 [Educating the Engineer of 2020: Adapting Engineering Education to the New Century](#), National Academy Press, 2005. ([Committee Report](#)). Citations [Citations](#).

B-11 "[Evolutionary Synthesis of Micromachines Using Supervisory Multiobjective Interactive Evolutionary Computation](#)", (with Kamalian, R., Y. Zhang, H. Takagi), *Lecture Notes on Artificial Intelligences*, Springer Berlin/ Heidelberg Publishers, Vol. 3830, 2006, pp. 428-437. [Citations](#).

B-12 [*Biological, Social and Organizational Components of Success for Women in Academic Science and Engineering*](#), National Academy Press, 2006. Report of the National Academies' [Committee on Maximizing the Potential of Women in Academic Science and Engineering](#).

B-13 [*Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering*](#), National Academy Press, September 18, 2006. Report of the National Academies' [Committee on Maximizing the Potential of Women in Academic Science and Engineering](#). This report has received [considerable press coverage](#), including print, radio, television, and blogs. [Citations](#).

B-14 ["Knowledge-Based Evolutionary Linkages in MEMS Design Synthesis"](#), (Cobb, C.L., Y. Zhang, A. M. Agogino, J. Mangold), chapter in book: *Linkage in Evolutionary Computation*, (Springer Berlin / Heidelberg, ISBN 978-3-540-85067-0) Volume 157/2008, pp. 461-483. [Citations](#).

B-15 ["Gender Differences at Critical Transitions in the Careers of Science, Engineering and Mathematics Faculty."](#) (co-authored with Committee on Gender Differences in the Careers of Science, Engineering, and Mathematics Faculty; Committee on Women in Science, Engineering, and Medicine; Committee on National Statistics), National Research Council, 2010.

B-16 ["Human Performance Modification: Review of Worldwide Research with a View to the Future."](#) National Research Council, (co-authored as part of Committee on Assessing Foreign Technology Development in Human Performance Modification; Board on Behavioral, Cognitive, and Sensory Sciences; Division on Engineering and Physical Sciences; Division of Behavioral and Social Sciences and Education), National Research Council, 2012.

B-17 ["From Science to Business: Preparing Female Scientists and Engineers for Successful Transitions into Entrepreneurship: Summary of a Workshop."](#) (co-authored with Committee on Women in Science, Engineering, and Medicine; Policy and Global Affairs), National Research Council, 2012.

B-18 ["Interactive Hybrid Evolutionary Computation for MEMS Design Synthesis"](#), (with Y. Zhang), book chapter in *Lecture Notes in Electrical Engineering - Advances in Neural Network Research and Applications*, Springer, ISBN 978-3-642-12989-6, pp. 211-218.

B-19 "Social Factors in the Age of Social Media - A Multidisciplinary Approach," (with Y. Perez, R. Shelby, D. Edmunds, A. James). Chapter in *Death and Life of Social Factors*, (ed., Lusi Morhayim and Georgia Lindsay), Cambridge Scholars Publishing, Chapter 8, pp. 144-168. This book is in press and scheduled for publication in 2015.

B-20 [Career Choices of Female Engineers](#), (CSWEM Committee Report of Workshop), National Academies Press, 2014.

Peer-reviewed Conference Proceedings

P-1. "Measurements of Technology Transfer and Dependence: Application to Mexico," ASME# 82-WA/TS-8, ASME, Winter Annual Meeting, Nov. 14-20, 1982.

P-2. "Use of Probabilistic Inference in Diagnostic Expert Systems," *Proceedings of the 1985 International Computers in Engineering Conference*, ASME, 1985, Vol. 2, pp. 305-310. [Citations](#).

P-3. "SYMON: Automated Symbolic Monotonicity Analysis System for Qualitative Design Optimization," (with J. Choy), *Proceedings of the 1986 International Computers in Engineering Conference*, ASME, Vol. 2, 1986, pp. 305-310. [Citations](#)

P-4. "Sensor-Integrated Expert System for Manufacturing and Process Diagnostics," (with A. Rege), *Knowledge-Based Expert Systems for Manufacturing*, ed. by S. C.-Y. Lu and R. Komanduri, ASME PED- vol. 24, 1986, pp. 67-83. [Citations](#)

P-5. "Representing and Solving the Probabilistic Inference Problems in Expert Systems," (with A. Rege) *Proceedings of the ICS-86, International Computer Symposium*, December 15-19, 1986, Tainan, Taiwan, IEEE, Vol. 3, pp. 1685-1691.

P-6. "A Graphical Interface to an Influence Diagram Based Expert System," (with M. Lambert), *Proceedings of the Second International Conference on Human-Computer Interaction*, August 1987, p. 324.

P-7. "Symbolic Computation in Computer-Aided Optimal Design," (with A. Almgren) *Expert Systems in Computer-Aided Design*, ed. by J.S. Gero, North-Holland, Amsterdam, 1987, pp. 267-284. [Citations](#).

P-8. "AI in Computer-Aided Design: Qualitative Reasoning and Symbolic Computation," *The Study of the Design Process*, ed. M. Waldron, 1987, pp. 263-294. [Citations](#)

P-9. "Expert Systems Applied to Rehabilitation Engineering: A New Approach to the Evaluation of Control," (with Hsi, S., M. Barker and B. Yazdani-Kachoee), *Proceedings of the RESNA 10th National Conference*, June 1987, pp. 148-150. [Citations](#).

P-10. "Testing and Validation Program for the Expert System ADIS: Assistive Device Interface Selector," (S. Hsi and M. Barker), *Proceedings of the International Conference of the Association for the Advancement of Rehabilitation Technology*, (Montreal, June, 1988), pp. 74-75. [Citations](#)

P-11. "ADIS: Assistive Device Interface Selector for the Disabled," (with S. Hsi, M. Barker and B. Yazdani-Kachoee) *Proceedings of the ASME International Computers in Engineering Conference*, Vol. 1, pp. 109-114, (July 31 - August 3, 1988, San Francisco, California). [Citations](#).

- P-12. "Calibration of Fuzzy Linguistic Variables for Expert Systems," (with P. Jain), *Proceedings of the 1988 ASME International Computers in Engineering Conference*, Vol. 1, pp. 313-318. [Citations](#).
- P-13. "CVAID: An Expert System For Diagnosis and Repair of a Car Valve Actuator," (with R. Paasch, K. Swanson, R.E. Heiskell, J. M. Quinto and R.G. Taylor) *Proceedings of the 1988 ASME International Computers in Engineering Conference*, Vol. 1, pp. 349-353.
- P-14. "Sensor Fusion Using Influence Diagrams and Reasoning by Analogy: Application to Milling Machine Monitoring and Control", (with R. Guha and S. Russell), *Artificial Intelligence in Engineering: Diagnosis and Learning*, Computational Mechanics Publications, Southampton, 1988, pp. 333-357. [Citations](#)
- P-15. "Optimal Design of Mechanisms Using Simulated Annealing: Theory and Applications," (with P. Jain), *Advances in Design Automation 1988*, (ed. by S.S. Rao), DE-Vol. 14, Sept. 1988, pp. 233-238. [Citations](#)
- P-16. "[Stochastic Sensitivity Analysis using Fuzzy Influence Diagrams.](#)" (with P. Jain), *Proceedings of the Fourth AAAI Workshop on Uncertainty in Artificial Intelligence*, pp. 178-188, (University of Minnesota, August 19-21, 1988). (Also published as book chapter in *Uncertainty in Artificial Intelligence 4*, eds., R.D. Shachter, T.S. Levitt, L.N. Kanal, J.F. Lemmer; Elsevier Science Publishers V.V., North-Holland Press, 1990, pp. 79- 92.) [Citations](#)
- P-17. "AI/OR Computational Model for Integrating Qualitative and Quantitative Design Methods," (with S.R. Bradley, J. Cagan, P. Jain, and N. Michelena), *Proceedings of the NSF Engineering Design Research Conference* (Amherst, MA, June 1989), pp. 97-112. [Citations](#)
- P-18. "Why AI-Design Researchers Should Distinguish Between Creative, Innovative and Routine Levels of Design," (with J. Cagan), *Position Papers of the Workshop on Research for AI in Design* (Stanford University, March 25, 1989; J.S. Gero, coordinator), 1989, pp. 43-51. [Citations](#).
- P-19. "Real Time Reasoning about Time Constraints and Model Precision in Complex Distributed Mechanical Systems," (with K. Ramamurthi), *Symposium on AI and Limited Rationality* (AAAI Spring Symposium Series, Stanford University, March 28-30, 1989), pp. 1-5. [Citations](#)
- P-20. "[Automated Construction of Sparse Bayesian Networks from Unstructured Probabilistic Model and Domain Information.](#)" (with S. Srinivas, and S. Russell) *Proceedings of the Fifth Workshop on Uncertainty and AI*, AAAI, August 1989, pp. 343-350. (Also published in *Uncertainty in Artificial Intelligence 6*, eds., Henrion, et al.; Elsevier Science Publishers V.V., North-Holland Press (ISBN:0-444-88738-5), 1990, pp. 295-308.) [Citations](#) and [more](#)
- P-21. "[A Fault Location System for a Time of Flight Detector Array,](#)" *Computer Physics Communications*, (with D. Hall, W. Greiman, W.F. Johnson, D. Olson, R. Paasch, A.

Padgaonkar, and D.W. Robertson) Vol. 57, Nos. 1-3, pp. 499-502, pp. 1989. [Citations](#).

P-22. "Expert Advisor for Configuring Information Display Systems," (with R. Stieber and J. Sullivan), *Proceedings of the ASME International Computers in Engineering Conference* (August 5-9, 1990 in Boston, Massachusetts), pp. 341-348. [Citations](#).

P-23. "[Real Time Expert System for Predictive Diagnostics and Control of Drilling Operation](#)," (with K. Ramamurthi and D. Shaver), *Proceedings of the Sixth IEEE Conference on Artificial Intelligence Applications*, (Santa Barbara, CA, March 5-9, 1990.), Vol. I, pp. 63-68 and Vol. II (Visuals), pp. 113-117. [Citations](#)

P-24. "Knowledge Capture and Concurrent Design," *Advances in Integrated Product Design and Manufacturing*, (with S. Bradley), eds., P.H. Cohen and S.B. Joshi, ASME, PED-Vol. 47, 1990, pp. 17-30. [Citations](#)

P-25. "Intelligent Real Time Design: Application to Prototype Selection," (with S. Bradley), *Proceedings of the First International Conference on Artificial Intelligence in Design*, (ed., J. S. Gero) Butterworth- Heinemann Publishers, Oxford, 1991, pp. 815-837. [Citations](#).

P-26. "[Management of Uncertainty in the Multi-Level Monitoring of the Time of Flight Scintillation Array](#)" (with R. K. Paasch), *Uncertainty in Artificial Intelligence, Proceedings of the Seventh Conference*, Morgan Kaufman Publishers. (UCLA, July 13-15, 1991), pp. 257-263. [Citations](#)

P-27. "A Multimedia Concept Database for Improved Life Cycle Design", (with S. Bradley), in *Engineering Databases; An Enterprise Resource*, (ed., Vijay Saxena; (Proceedings of the 1991 ASME Engineering Database Symposium), ASME, 1991, pp. 121-128. [Citations](#)

P-28. "[Optimal Design as a Real Time AI Problem](#)," (with S. Bradley), *System Modelling and Optimization*, (ed., P. Kall; Lecture Notes in Control and Information Sciences 180), Springer-Verlag, 1992, pp. 629-638. [Citations](#)

P-29. "[An Interface for Interactive Spatial Reasoning and Visualization](#)," (with J.R. Osborn), in *Proceedings of CHI'92* (Conference on Human Factors in Computing Systems, (Monterey, California May 3-May 7, 1992), ACM, New York, 1992. pp. 75- 82. [Citations](#)

P-30. "Signal Validation for Expert System Development," (with Y.J. Kim and W.H. Wood), *Proceedings of the 2nd International Forum on Expert Systems and Computer Simulations in Energy Engineering*, March 17-20, 1992 (Erlangen, Germany), pp. 9-5-1 to 9-5-6. [Citations](#)

P-31. "Qualitative Reasoning about Constraint Activity under Uncertainty using Monotonic Influence Diagrams," (with N. Michelena), in *Working Notes of the AAAI Fall Symposium Series on Design from Physical Principles*, 1992, pp. 7-12, pp. 30-31. [Citations](#)

P-32. "Integrating Neural Networks with Influence Diagrams for Power Plant Monitoring and Diagnostics," (with M.L. Tseng and P. Jain), in *Neural Network Computing for the Electric Power Industry: Proceedings of the 1992 INNS Workshop* (International Neural Network Society), Lawrence Erlbaum Associates, Publishers, Hillsdale, NJ, pp. 213-216.

[Citations](#)

P-33. "[Making Connections to Engineering in the First Two Years](#)," (with S. Sheppard and A. Oladipupo ; ed., Lawrence P. Grayson), *Frontiers in Education toward 2000*, IEEE, pp. 563-569, 1992. [Download pdf of paper](#). [Citations](#)

P-34. "Use of Multimedia Technology in Teaching Engineering Design," (with S. Hsi), *Proceedings of HCI International '93* (5th International Conference on Human-Computer Interaction, Orlando, Florida; Aug. 8-13, 1993), pp. 778-783. [Citations](#)

P-35. "Navigational Issues in Multimedia Case Studies of Engineering Design," (with S. Hsi), *Proceedings of HCI International '93* (5th International Conference on Human-Computer Interaction, Orlando, Florida; Aug. 8-13, 1993), pp. 764-769. [Citations](#).

P-36. "Qualitative Decision Analysis," (with N. Michelena), in *Qualitative Reasoning and Decision Technologies*, (Proceedings of III IMACS International Workshop on Qualitative Reasoning and Decision Technologies; eds. N. Piera Carrete & M.G. Singh; 16-18 June 1993; Barcelona, Spain), pp. 285-293. [Citations](#)

P-37. "[Computer-Assisted Catalog Selection with Multiple Objectives](#)," (with S. Bradley), in the *Proceedings of the ASME 1993 Design Theory and Methods Conference*, pp. 139-147. [Citations](#)

P-38. "Open Problems in Uncertain Reasoning in Design," (with S.R. Bradley), in the *Proceedings of EUFIT '93 - First European Congress on Fuzzy and Intelligent Technologies* (Aachen, Germany, Aug. 1993), pp. 139-147. [Citations](#)

P-39. "[Comparing a Neural-Fuzzy Scheme with a Probabilistic Neural Network for Applications to Monitoring and Diagnostics in Manufacturing Systems](#)," (with K. Goebel, W.R. Wood and P. Jain,) *1994 AAAI Spring Symposium Working Notes: Detecting and Resolving Errors in Manufacturing Systems*, (Stanford University, March 21-23, 1994), pp. 45-50. [Citations](#)

P-40. "[Intelligent Engineering Component Catalogs](#)," (with S.R. Bradley and W.H. Wood III), in *AI in Design'94*, (Eds., J. S. Gero and Fay Sudweeks), Kluwer Academic Publishing, pp 641-658. [Citations](#)

P-41 "[A Framework for Intelligent Sensor Validation, Sensor Fusion and Supervisory Control of Automated Vehicles in IVHS](#)," (with S. Alag and K. Goebel). *Intelligent Transportation: Serving the User through Deployment*, Proceedings of the 1995 Annual Meeting of ITS AMERICA, (CASET Associates, LTD, 10201 Lee Highway - Suite 160, Fairfax Virginia 22030), V. 1, pp. 77-87. [Citations](#)

P-42 "[A Methodology for Intelligent Sensor Validation and Fusion used in Tracking and Avoidance of Objects for Automated Vehicles](#)," (with S. Alag and K. Goebel). *Proceedings of American Control Conference (ACC T95; ISBN 0-7803-2445-5)*, Seattle, WA, June 1995, pp. 3647-3653. [Citations](#)

P-43 "[Managing Design Knowledge in Enterprise-Wide CAD](#)," *Advances in Formal Design Methods for CAD*, (with A. Dong, F. Moore, and C. Woods), Eds., J.S. Gero and F. Sudweeks, *Preprints of the IFIP WG 5.2 Workshop on Formal Design Methods for CAD*, Key Centre of Design Computing, University of Sydney), pp. 329-347. [Download](#) postscript file. [Citations](#)

P-44 "[A Spectral Optimization Algorithm for Multi-Objective Prototype Selection](#)," *Proceedings of the 1995 Design Engineering Technical Conferences*, (with A. Dong), Vol. 2, 9th International Conference on Design Theory and Methodology, September 17-20, Boston, MA, A.C. Ward, (ed.), New York: ASME, DE-Vol. 83, pp. 447-454. [Citations](#)

P-45 "[Scaffolding Knowledge Integration through Designing Multimedia Case Studies of Engineering Design](#)," *Engineering Education for the 21st Century: Proceedings of Frontiers in Education, FIE'95*, (with S. Hsi), ASEE/IEEE (ISBN 0-7803-3022-6), pp. 4d1.1-4d1.4. [Citations](#)

P-46 "[People, Product and Process: Interactive Multimedia Case Study in Integrated Design and Manufacturing Strategies](#)," (with D. Johnston and R. Stanard), *Engineering Education for the 21st Century: Proceedings of Frontiers in Education, FIE'95*, ASEE/IEEE, pp. 3a2.22-3a2.26.

P-47 "[Learning Style Based Innovations to Improve Retention of Female Engineering Students in the Synthesis Coalition](#)," *Engineering Education for the 21st Century: Proceedings of Frontiers in Education, FIE'95* (with S. Hsi), ASEE/IEEE, pp. 4a2.1-4a2.4. [Citations](#) [Citations](#)

P-48 "[An Architecture for Fuzzy Sensor Validation and Fusion for Vehicle Following in Automated Highways](#)," *Proceedings of the 29th International Symposium on Automotive Technology and Automation (ISATA), Dedicated Conference on Fuzzy Systems/Soft Computing in the Automotive and Transportation Industry*, Florence, Italy, June 3-6, 1996, pp. 203-209. [Citations](#)

P-49 "[Inference Using Message Propagation And Topology Transformation In Vector Gaussian Continuous Networks](#)," (with S. Alag), *Proceedings of the 12th Conference on Uncertainty in Artificial Intelligence*, 1996, pp. 20-28. See [abstract](#). [Citations](#)

P-50 "A Machine Learning Approach to Automated Design Classification, Association and Retrieval," (with A. Varma and W.H. Wood). *Artificial Intelligence in Design '96*, Kluwer Academic Publishers, pp. 429-445, 1996. [Citations](#).

P-51 "A Model for Concurrent Information Exchange Based on the Method of Temporal Differences," (with A. Varma), *Proceedings of the Tenth Florida Artificial Intelligence*

Research Symposium : Special Track on Models and Applications for Design, (May 10-14th, 1997, Daytona Beach, Florida), pp. 106-120.

P-52 "Probabilistic and Fuzzy Methods for Sensor Validation and Fusion in Vehicle Guidance: A Comparison,(with K. Goebel and S. Alag), *Proceedings of ISATA '97, 30th International Symposium on Automotive Technology & Automation*, (dedicated conference on fuzzy systems/soft computing in the automotive and transportation industry; Florence, Italy 16th-19th '97), Vol. 1: Mechatronics/Automotive Electronics, pp. 711-719. [Citations](#)

P-53 "Function-Costing Applied to Brushless D.C. Permanent Magnet Motors," (with B. Chidambaram), *Proceedings of the 1997 ASME Design Automation Conference* (Sept. 14-17, 1997, Sacramento, CA), CD ROM ISBN 0-7918-1243-X. [Citations](#)

P-54 "A Prescription for Information Prospecting, Data Mining, and Design Refinement," (with W. H. Wood), *Proceedings of the 9th International ASME Conference on Design Theory and Methodology* (Sept. 14-17, 1997, Sacramento, CA), CD ROM ISBN 0-7918-1243-X. [Citations](#)

P-55 "Optimal Safety Decision Making in Advanced Vehicle Control Systems,"(with S. Chao), *Proceedings of the 36th IEEE Conference on Decision and Control* (Dec. 10-12, 1998, San Diego, CA), IEEE, New York, NY, Cat. No. 97CH3612, Vol. 5, 1997, p. 4788-9.

P-56 "[Engineering for Middle School: A Web-based Module for Learning and Designing with Simple Machines](#)," (with A. McKenna), CD ROM ISBN 0-7803-4089-2, IEEE/ASEE FIE'97, *Proceedings of the Frontiers in Engineering Education*) Conference. Won Best Paper Award; thirteen papers out of 400 submitted were selected for this award. [Citations](#)

P-57 "[Integrating Design, Analysis and Problem Solving in an Introduction to Engineering Curriculum for High School Students](#)," (with A. McKenna), *Engineering Education: Contributing to U.S. Competitiveness; Proceedings of ASEE '98*, ASEE, June 28-July 1, 1988, CD ROM, Session 1280, pp. 1-14. (Won 'overall best paper' award.) [Citations](#)

P-58 "[Design Information Retrieval: Improving Access to the Informal Side of Design](#)," (with Wood, W. H, M.C. Yang, M.R. Cutkosky), *Proceedings of the ASME DETC98 International Conference on Design Theory and Methods*, Paper #5665, ASME CD ROM, ISBN 079181953-1, 1998. [Citations](#)

P-59 "Hazard Diagnosis in Advanced Vehicle Control Systems," (with S. Chao), *Proceedings of the IASTED International Conference on Applied Modelling and Simulation*, (August 12-14, 1998), pp. 229-232. Related [presentation slides titled "Sensor Modelling and Fusion, and Applications to Hazard Diagnosis for AVCS"](#) at the PATH Program-Wide Research Meeting Richmond Field Station, UC Berkeley, November 5-7, 1998.

P-60 "[Capturing Students' Teamwork and Open-Ended Performance in an Undergraduate Multimedia Engineering Design Class](#)", (Ann McKenna and Lydia Mongia), *Proceedings of the Frontiers in Engineering Education Conference '98*, (CD ROM version: IEEE

Catalog # 0-7803-4762-5/98), Nov. 4-7, Tempe, AZ, pp. 264-269. [Citations](#)

P-61 "[Fuzzy Fusion for Gas Turbine Power Plants](#)", (with Kai Goebel), *Proceedings of the 1999 SPIE (International Society for Optical Engineering) Conference*, Vol. 3719, April 5-9, 1999 in Orlando, Florida. [Citations](#)

P-62 "[Sensor Noise Model Development of a Longitudinal Positioning System for AVCS](#)", (Jiangxin Wang and Susan Y. Chao), *Proceedings of the American Control Conference '99 (ACC'99)*; (ACC'99; June 2-4, 1999; San Diego, CA), Session FM11-1, pp. 3760-3764. [Citations](#)

P-63 "[Validation and Fusion of Longitudinal Positioning Sensors in AVCS](#)", (Jiangxin Wang and Susan Y. Chao), *Proceedings of the American Control Conference '99 (ACC'99)*; (ACC'99; June 2-4, 1999; San Diego, CA), Session TM08-2, pp. 2178-2182. [Citations](#)

P-64 "[Catalog-Based Customization](#)", (with Bala Chidambaram), *Proceedings of the 1999 ASME Design Automation Conference* (Sept. 12-15, 1999, Las Vegas, Nevada), CD ROM ISBN # 0791819671. [Citations](#)

P-65 "[Virtual Disk Drive Design Game with Links to Math, Physics and Dissection Activities](#)," (with Rebecca Richkus, David Yu, and David Tang), *Proceedings of FIE'99*, (Frontiers in Education Conference; San Juan, Puerto Rico; 10-14 November 1999), ASEE/IEEE, CD ROM ISBN #0-7803- 5646-2, pp. 12c3-18 to 12c3-22. [Citations](#)

P-66 "[Building a Digital Learning Community for Faculty on the Internet](#)," (with Jason Puzniak and Flora McMartin), *Proceedings of ASEE 2000*, Paper #3630, ASEE, 2000. [Citations](#)

P-67 "[Fusion of Bayesian and Fuzzy Analysis for Print Defect Diagnosis](#)" (with Shijun Qiu, Shuang Song, Jialong Wu, Shankaran Sitarama), *Proceedings of the ISCA 16th International Conference on Computers and Their Applications*, Seattle, Washington, USA, March 28-30, 2001, pp 229-232. [Citations](#).

P-68 "[A Framework for Interpreting Students' Perceptions of an Integrated Curriculum](#)," (with Ann McKenna, Flora McMartin, Youki Terada and Vanravi Sirivedhin), *Proceedings of ASEE 2001*, ASEE CD ROM (Session 1330). [Citations](#)

P-69 "[Theater Class Helps Transform the Climate for Diversity in Engineering](#)," (with Edith Ng and Carla Trujillo), *Proceedings of ASEE 2001*, CD ROM (Session 2592).

P-70 "[Identifying Shared Understanding in Design using Document Analysis](#)," (with Andrew Hill, Shuang Song and Andy Dong), *Proceedings of the ASME Design Theory and Methods Conference 2001*, ASME CD ROM DETC2001/DTM-21713. [Citations](#)

P-71 "[Automatic Composition of XML Documents to Express Design Information Needs](#)," (with Andy Dong, Jialong Wu and Shuang Song), *Design Management - Process and Information Issues*, (Proceedings of the 13th International Conference on Engineering

Design, ICED 01 Glasgow, August 21-23, 2001), Professional Engineering Publishing, London, ISBN # 1-86058-355-5, pp. 19-26. [Citations](#)

P-72 "[Speech Acts and Collaborative Learning in Classroom Case-Study Discussions](#)," (with Shankaran Sitarama and Andy Dong), *Proceedings of ICEE '01* (Oslo, Norway, August 6-10, 2001, <http://fie.engrng.pitt.edu/icee/>), pp. 7B3-18/23. [Citations](#)

P-73 "[Design Principles for the Information Architecture of a SMET Education Digital Library](#)," (with Andy Dong, Jialong Wu and Shuang Song). *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries*, June 24-28, 2001, pp. 314-321. (Nominated for the JCDL 2001 Vannevar Bush award.) [Citations](#)

P-74 "[Evolutionary Synthesis of MEMS \(Microelectronic Mechanical Systems\) Design](#)," (with Ningning Zhou, Bo Zhu and Kris Pister). *Proceedings of ANNIE 2001*, IEEE Neural Networks Council and Smart Engineering Systems Laboratory (Nov. 4-7, 2001, Marriott Pavilion Hotel, St. Louis, Missouri), ASME Press, Vol. 11, pp. 197-202. (Winner of First Runner-up for Novel Smart Engineering System Design Award). [Powerpoint slides](#) (1.2 MB). [Citations](#)

P-75 "[Addressing the Needs of Complex MEMS Design](#)," (with J.V. Clark, D. Bindel, N. Zhou, J. Nie, W. Kao, E. Zhu, A. Kuo, K.S.J. Pister, J. Demmel, S. Govindjee, Z. Bai and M. Gu), *Proceedings of the 15th IEEE International MEMS Conference*, (Jan. 20-24, 2002, Las Vegas, Nevada), IEEE, ISBN 0-7803-7187-9, 2002, pp. 204-209. [Citations](#)

P-76 "[Towards Computational Tools For Supporting the Reflective Team](#)," (with Hill, Andrew and Andy Dong), *Artificial Intelligence in Design '02*, Kluwer Academic Publishers, (ed., John Gero) pp. 305-325. [Citations citations](#)

P-77 "[Sensor Validation and Fusion with Distributed 'MEMS Dust' Sensors](#)," (with Shijun Qiu and Jessica Granderson), *Proceedings of the AAAS 2002 Spring Symposium*. [Citations](#)

P-78 "[Designing and Assessing a Learning Environment to Support Mechanical Reasoning and Understanding](#)," (with Ann McKenna), *Proceedings of ASEE 2002*, ASEE CDROM (Session 2138) 2002. (A more recent version has been accepted for publication in the *Journal of Engineering Education*. [Citations](#)

P-79 "[A Comparison of MEMS Synthesis Techniques](#)," (with R. Kamalian and N. Zhou), *Proceedings of the 1st Pacific Rim Workshop on Transducers and Micro/Nano Technologies*, (Xiamen, China, July 22-24, 2002), pp 239-242. [Citations](#)

P-80 "[Automated Design Synthesis for Micro-Electro-Mechanical Systems \(MEMS\)](#)," (with Zhou, Ningning, Alice M. Agogino and K.S. Pister). *Proceedings of the ASME Design Automation Conference*, ASME CD ROM (Sept. 29-Oct. 2 2002, Montreal, Canada). [Citations](#)

P-81 "[Perceptions of the Design Process: An Examination of Gendered Aspects of New Product Development](#)", (with Newman, C., M. Bauer, and J. Mankoff), *Designing*

Engineering Education (Proceedings of the Mudd Design Workshop IV), CD ROM, 2003. An updated version was published as International Journal of Engineering Education and listed as J-39.

Citations

P-82 "[Time Variance of Design 'Story Telling' in Engineering Design Teams](#)," (with Shuang Song and Andy Dong), *Proceedings of the International Conference on Engineering Design* (ICED), the Design Society, CD ROM, 2003. [Citations citations](#).

P-83 "[Designing an Untethered Educational Digital Library](#)" (with A. Dong), *Proceedings of the IEEE International Workshop on Wireless and Mobile Technologies in Education (WMTE 2003)*. [Citations](#)

P-84 "[Automating Keyphrase Building with Multi-Objective Genetic Algorithms](#)" (with J. Wu), *Proceedings of the Hawaii International Conference on System Science*, HICSS, CD ROM, 2003.

Citations

P-85 "[A Case Study of Policy Decisions for Federated Search Across Digital Libraries](#)," (with A. Dong and E. Fixler), *Proceedings of ICDL 2004 (International Conference on Digital Libraries)*, The Energy and Resources Institute, Vol. 2, 892-898, 2004. [Citations](#).

P-86 "[Life- Cycle Assessment of an Intelligent Lighting System Using a Distributed Wireless Sensor 'Mote' Network](#)", (with M.A. Dubberly and A. Horvath), *Proceedings of the 2004 IEEE International Symposium on Electronics and the Environment and the IAER Electronics Recycling Summit: Life-Cycle Environmental Stewardship for Electronic Products*, (May 10-13, 2004, Phoenix, Scottsdale, AZ, <http://www.iseesummit.org/>).

Citations

P-87 "[Optimized Design of MEMS by Evolutionary Multi-objective Optimization with Interactive Evolutionary Computation](#)," (with R. H. Kamalian and H. Takagi), *Proceedings of GECCO 2004* (Genetic and Evolutionary Computation Conference; June 26-30, 2004, Seattle, Washington), CD ROM, 2004. <http://gal4.ge.uiuc.edu:8080/GECCO-2004/index.html>. Archival version published in *Lecture Notes in Computer Science*, as B-8. [Citations](#)

P-88 "[Insights on Designers' Sketching Activities in New Product Design Teams](#)," (with S. Song), *Proceedings of the ASME Design Theory and Methods Conference*, Design Theory and Methods track, Paper # DETC2004-57474, CD ROM, ISBN # I710CD (winner of the 2004 Xerox Best Paper Award), 2004. [Citations](#)

P-89 "[The Role Of Constraints and Human Interaction in Evolving MEMS Designs: Microresonator Case Study](#)," (with R. H. Kamalian and H. Takagi), *Proceedings of the ASME Design Automation Conference*, Design Automation track, Paper # DETC2004-57462, CD ROM, ISBN # I710CD, 2004. [Citations](#)

P-90 "[Wireless Sensor Networks for Commercial Lighting Control: Decision Making with](#)

[Multi-agent Systems](#)". (with J. Sandhu and A.K. Agogino), *Proceedings of the AAAI-04 Workshop on Sensor Networks*. pp. 88-92, 2004. [Citations](#)

P-91 "[Towards Demand-Responsive Intelligent Daylighting with Sensing and Actuation](#)." (with J. Granderson, Y. Wen and K. Goebel), *Proceedings of the 2004 IESNA (Illuminating Engineering Society of North America) Annual Conference*, (Tampa, FL, July 25-28, 2004), IESNA, pp. 265-274. [Citations](#)

P-92 "[Implementation of Quality Evaluation for Web-based Courses and Digital Learning Resources](#)," (with X. Teng, B. Muramatsu, J.W. Zhang, J.G. Tront, and F. McMartin), *Proceedings of the 3rd International Conference on Web-based Learning* (Aug. 8-11, 2004, Tsinghua University, Beijing, China). Archival version published Springer-Verlag *Lecture Notes in Computer Science*. See B-8 for full citation. [Citations](#)

P-93 "[Fuzzy Validation and Fusion for Wireless Sensor Networks](#)," (with Y.J. Wen, A.M. Agogino and K. Goebel), *Proceedings of the ASME International Mechanical Engineering Congress* (Nov. 13-19, 2004; Anaheim Hilton). [Citations](#).

P-94 "[Hierarchical MEMS Synthesis and Optimization](#)", (with Y. Zhang, R. Kamalian, and C. Sequin), *Smart Structures and Materials 2005: Smart Electronics, MEMS, BioMEMS, and Nanotechnology* (ed., V.K. Varadan, ed.), (International Society for Optical Engineering), *Proceedings of SPIE Vol. 5763*, p. 96-106. CD ROM. Paper # 5763_12. [Citations](#)

P-95 "[Informal Health and Legal Rights Education in Rural, Agricultural Communities Using Mobile Devices](#)", (J. Sandhu, J. Hey, and C. Newman), *Proceedings of IEEE Technology for Education in Developing Countries (TEDC) Workshop*, Kaohsiung, Taiwan, 2005. [Citations](#)

P-96 "[Best Practices in the Design, Development and Use of Courseware in Engineering Education](#)," (with Teng, X., J.G. Tront, and B. Muramatsu), *Proceedings of FIE2005*, Session F2E. [Citations](#).

P-97 "[Integrating Education, Research, and Outreach: Exemplars from the NSF Distinguished Scholars Program](#)," (with L. Jamieson, G. Kalonji, D.F. Ollis, H.V. Poor, S.E. Powers, and C. Rodgers), Extended Abstract in *Proceedings of the Frontiers in Education Conference 2005*, ASEE/IEEE, Session F1A (October 19-22, 2-5, Indianapolis, IN).

P-98 "[Improving Evolutionary MEMS Synthesis through Fabrication and Testing Feedback](#)", (with R. Kamalian), *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, SMC2005 (Oct. 10-12, 2005), IEEE, pp 1908-1913. [Citations](#)

P-99 "[Reduced Human Fatigue in Interactive Evolutionary Computation For Micromachine Design](#)", (R. Kamalian, Y. Zhang, and H. Takagi), *Proceedings of ICML2005*, the Fourth International Conference on Machine Learning and Cybernetics

(August 19-21 2005), International Machine Learning Society, pp 5666-5671. [Citations](#)

P-100 "[Microfabrication and Characterization of Evolutionary MEMS Resonators](#)," (with R. Kamalian and Y. Zhang), *Proceedings of the Symposium of Micro- and Nano-Mechatronics for Information-based Society*, IEEE Robotics & Automation Society (ISBN # 0-7803-9482-8), Nov. 2005, pp. 109-114. Won best paper award. [Citations](#)

P-101 "[Comparison of Event Detection Methods for Centralized Sensor Networks](#)", (with J. Sauvageon, A.F. Mehr and I. Tumer), *Proceedings of the Sensors Applications Symposium 2006*, 7-9 Feb. 2006 CD ROM, Paper #6028, IEEE and Instrumentation & Measurement Society, IEEE and Instrumentation & Measurement Society, IEEE Catalog Number: 06EX1234C; ISBN: 0-7803-9581-6, pp. 93-100. [Citations](#).

P-102 "[Towards Embedded Wireless-Networked Intelligent Daylighting Systems for Commercial Buildings](#)", (with Y.-J. Wen and J. Granderson) *Proceedings of the IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing*, IEEE Computer Society, #0-7695-2553-9/06, 2006. [Citations](#).

P-103 "[Design Synthesis of Microelectromechanical Systems Using Genetic Algorithms with Component-based Genotype Representation](#)", (with Y. Zhang, R. Kamalian and C.H. Sequin), *Proceedings of the GECCO 2006 (Genetic and Evolutionary Computation Conference)*, ISBN 1-59593-187-2, Vol. 1, 2006, pp. 731-738. [Citations](#)

P-104 "[Reducing Human Fatigue in Interactive Evolutionary Computation through Fuzzy Systems and Machine Learning Systems](#)", (with R. Kamalian, E. Yeh, Y. Zhang, and H. Takagi), *Proceedings of IEEE Conference on Fuzzy Systems 2006*, held as part of the IEEE World Congress on Computational Intelligence, IEEE # 0-7803-9489-5/06 pp. 3295-3301. [Citations](#)

P-105 "[An Analysis of Student Reflections from a Multidisciplinary New Product Development Teams](#)", (with J. H. Hey and A.P Van Pelt), *Proceedings of the IDETC/Design Education 2006*, Paper #DETC2006-99561, CD ROM ISBN 0-7918-3784-X, ASME.

P-106 "[Case-Based Reasoning for the Design of Micro-Electro-Mechanical Systems](#)", (with C. Cobb), *Proceedings of the IDETC/CIE 2006*, Paper #DETC2006-99120, CD ROM ISBN 0-7918-3784-X, ASME. [Citations](#)

P-107 "[Interactive Evolutionary CAD System for MEMS Layout Synthesis](#)," (with R. Kamalian and H. Takagi), *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics* (Oct. 8 - Oct. 11, 2006 - The Grand Hotel, Taipei, Taiwan), IEEE, CD ROM ISBN: 1-4244-0100-3, 2006, pp. 3469-3474. [Citations](#)

P-108 "[Unblinking in Mobile Learning](#)," (with J.-S. Hsu, C. Daniels, C.-E. Montgomery, P. Mackinney, and A. A. Gieringer), accepted for the conference [UnBlinking: New Perspectives on Visual Privacy in the 21st Century](#), A Cross-Disciplinary Symposium at UC Berkeley, 3-4 November 2006. Slide presentation ([pdf](#)).

- P-109 ["MEMS Design Synthesis: An Integrated MEMS Design Synthesis Architecture Using Case-Based Reasoning and Multi-Objective Genetic Algorithms."](#) (with Cobb, C. and Y. Zhang), *Proceedings of 2006 SPIE Smart Materials, Nano- and Micro-Smart Systems*, SPIE Vol. 6414, #641419, ISBN: 9780819465221 (Invited Paper). [Citations](#),
- P-110 ["Enabling and Characterizing Twenty-First Century Skills in New Product Development Teams"](#), (with C. Cobb, S. Beckman and L. Speer). *Design and Engineering Education in a Flat World*", Proceedings of the 2007 Mudd Design Workshop IV (23-25 May 2007). [Citations](#).
- P-111 ["Analogies and Metaphors in Creative Design"](#), (with J. Hey, J. Linsey, and K.L. Wood). *Design and Engineering Education in a Flat World*", Proceedings of the 2007 Mudd Design Workshop IV (23-25 May 2007). [Citations](#).
- P-112 ["Longitudinal Study of Learning Outcomes: A Comparison of Lessons Learned in a New Product Development Class with Impact after Professional Experience"](#), (with C. Cobb and S. Beckman), *Proceedings of the ASME DETC (Design Engineering Technical Conference)*, CD ROM, ISBN 07-7918-3806-4, Paper# DETC2007-34456, 2007. [Citations](#).
- P-113 ["Metaphors and Conceptual Design"](#), (with J. Hey), *Proceedings of the ASME DETC Conference, ASME DETC (Design Engineering Technical Conference)*, CD ROM, ISBN 07-7918-3806-4, Paper# DETC2007-34874, 2007. [Citations](#).
- P-114 ["Use of IEC with Simplified Modeling for Computationally Expensive Layout Design Optimization"](#), (with R. Kamalian and H. Takagi), *Proceedings of the 2007 IEEE Congress on Evolutionary Computation (CEC2007)*, Singapore, 2007, ISBN: 1-4244-1340-0, Paper# 1556, pp. 4124-4129. [Citations](#).
- P-115 ["Case-Based Reasoning and Object-Oriented Data Structures Exploit Biological Analogs to Generate Virtual Evolutionary Linkages"](#), (with C.L. Cobb, Y. Zhang, and J. Mangold), *Proceedings of the 2007 IEEE Congress on Evolutionary Computation (CEC2007)*, Singapore, ISBN: 1-4244-1340-0, Paper# 1784, pp. 334-341, 2007.
- P-116 ["ABET Alignment of Learning Resources in the Engineering Pathway Digital Library"](#), (with J-L Wu), *Proceedings of the ASME Congress*, 2007 (ISBN 0-7918-3812-9).
- P-117 ["Mobile Learning and Digital Libraries: Designing for Diversity"](#), (with E. Datta), *Proceedings of the ASME Congress*, 2007 (ISBN 0-7918-3812-9).
- P-118 ["Design First, Technology Second"](#), (with J. S. Sandhu), ACM, Computer-Human Interaction Conference, CHI 2008 (Florence, Italy, April 5-10, 2008). [Citations](#).
- P-119 ["Academic Climate and Advisor Support Affect the Quality of Womens' Experiences in Graduate School"](#), (with Carolyn J. Sparrey, Beth Lopour, and Jenni M. Buckley), WEPAM (Women in Engineering Proactive Network), National Conference, 2008.

- P-120 ["Broadening Participation in Computing with the K-Gray Engineering Pathway Digital Library"](#), (with M. Smith), abstract for poster session at JCDL 2008 (June 16-20, 2008, Pittsburgh, PA) ACM 978-1-59593-998-2/08/06.
- P-121 ["Educating the Engineer of 2020,"](#) Keynote Talk, abstract in the *Proceedings of the 9th Biennial ASME Conference on Engineering Systems Design and Analysis, ESDA08* (July 7-9, 2008, Haifa, Israel).
- P-122 ["META4EXPLORER: Generating Compelling Metaphors for Design"](#), (with E.M. Kolb, J. Hey and H.-J. Sebastian), *Proceedings of the Design Engineering Technology Conference*, ASME, 2008. [Citations.](#)
- P-123 ["Design Team Framing: Paths And Principles"](#), (with J. Hey and J. Yu), *Proceedings of the Design Engineering Technology Conference*, ASME, 2008. [Slide](#) Presentation. [Citations..](#)
- P-124 ["Teaching Multinational, Multidisciplinary Sustainable Product Development"](#), (with V. Borja, S. Beckman, N. Shedroff, M. Lopz, A. Ramirez), *Proceedings of the Design Engineering Technology Conference*, ASME, 2008. [Citations.](#)
- P-125 ["Wireless Networked Lighting Systems for Optimizing Energy Savings and User Satisfaction,"](#) (with Y.-J. Wen), *Proceedings of Wireless Hive Networks Conference*, IEEE 978-1-4244-2849-6/08, 2008. [Citations.](#)
- P-126 ["Energy Conservation Utilizing Wireless Dimmable Lighting Control in a Shared-Space Office"](#), (with Y-J Wen, J. Bonnell), *Proceedings of the 2008 Annual Conference of the Illuminating Engineering Society*, Savannah, GA 2008. [Presentation Slides.](#) [Citations.](#)
- P-127 ["Sketching in Design Journals: Visual Representations in the Product Design Process,"](#) (with K. Lau and L. Oehlberg), *Proceedings of the ASEE Engineering Design Graphics Division Midyear Conference*, 2009. [Citations.](#)
- P-128 ["Design strategies and preliminary prototype for a low-cost arsenic removal system for rural Bangladesh"](#), (with J.L. Mathieu, A.J. Gadgil, K. Kowolik, S. Qazi), *Proceedings of the International Conference WEDC (Water, Engineering and Development - Water, Sanitation and Hygiene: Sustainable Development and Multisectoral Approaches*
- P-129 ["Framing Sustainability in Human-Centered Product Design,"](#) (with L. Oehlberg and S. Beckman), *Proceedings of the ASME 2009 International Design Engineering Technical Conference*, 2009.
- P-130 "Relationship Conflict and Feeling Communication in Design Teams," (with C. Roschuni, L. Oehlberg and S. Beckman), *Proceedings of the ASME 2009 International Design Engineering Technical Conference*, 2009.
- P-131 ["Sustainable Product Design: Designing for Diversity in Engineering Education,"](#)

(with L. Oehlberg and R. Shelby), *Proceedings of the Mudd Design Conference*, May 2009. [Presentation Slides](#). . . . [Citations](#)

P-132 "[The Co-Design of Water and Energy Efficient Sustainable Housing with the Pinoleville Pomo Nation](#)," (with Tobias C. Schultz, Ryan Shelby), *Proceedings of the ASME International Sustainability Conferences*, May 17-22, 2010, Phoenix, Arizona.

P-133 "[Human Power Generation in Fitness Facilities](#)," (with Maha Haji, Kimberly Lau), *Proceedings of the ASME International Sustainability Conferences*, May 17-22, 2010, Phoenix, Arizona. [Citations](#)

P-134 "[Sustainable Product Development Initiatives in the Footwear Industry Based on the Cradle to Cradle Concept](#)," (with J.J. Jacques, L.M.B. Guimaraes), *Proceedings of the ASME 2010 International Design Engineering Technical Conferences & Computers and Information in 15th Design for Manufacturing and the Lifecycle Conference (DFMLC)*. [Slides \(pdf\)](#)

P-135 "[Green Hat: Exploring the Natural Environment Through Experts Perspectives](#)" (with K. Ryokai, L. Oehlberg, M. Manoochchetri), *ACM CHI '11: Proceedings of the 29th International Conference on Human factors in Computing Systems*, 2011, pp. 2149-2152. Received Best Note Honorable Mention. [Citations](#)

P-136 "[Undergraduate Conceptions of the Engineering Design Process: Assessing the Impact of a Human-Centered Design Course](#)", (with L. Oehlberg), *Proceedings of ASEE 2011*. [Citations](#)

P-137 "A Cross-National Investigation of Confidence in ABET Skills and Kolb Learning Styles: Korea and the United States" (with K. Lau and M.K. Thompson), *Proceedings of ASEE 2011*. [Final with corrected numbers](#).

P-138 "[Teaching Human-Centered Design Innovation Across Engineering, Humanities and Social Sciences](#)", (with L. Oehlberg, I. Leighton, and B. Hartmann), *Proceedings of Mudd Design 2011*.

P-139 "[Diversity in Design Teams: An Investigation of Learning Styles and their Impact on Team Performance and Innovation](#)", (with K. Lau and S. Beckman), *Proceedings of Mudd Design 2011*.

P-140 "[Communicating Design Research: Framing Techniques](#)", (with C. Roschuni), abstract in *Proceedings of Mudd Design 2011*.

P-141 "[The Design Exchange: Supporting the Design Community of Practice](#)", (with C. Roschuni and S. Beckman), *Proceedings of ICED 2011 Proceedings of the 18th International Conference on Engineering Design (ICED11)*, Vol. 8, 2011, pp. 255-264.

P-142 "[A Descriptive Study of Designers' Tools for Sharing User Needs and Conceptual Design](#)", (with L. Oehlberg and C. Roschuni), *Proceedings of ASME DETC 2011*, ASME,

CD ROM DETC2011-48661; pp. 199-208. [Citations](#)

P-143 "[Co-Design Methodology for the Development of Sustainable and Renewable Energy Systems for Underserved Communities: A Case Study With the Pinoleville Pomo Nation](#)", (with R. Shelby and Y. Perez), *Proceedings of ASME DETC 2011*, ASME, CD ROM DETC2011-48661; pp. 515-526. [Citations](#)

P-144 "[Mapping the Life Cycle Analysis and Sustainability Impact of Design for Environment Principles](#)", (with L. Oehlberg, C. Bayley, C. Hartman), in *Leveraging Technology for a Sustainable World*, Proceedings of the 19th CIRP Conference on Life Cycle Engineering (Eds., D. A. Dornfeld and B. S. Linke), ISBN 978-3-642-29068-8), 2012, pp. 221-226.

P-145 "[Dazzle: Supporting Framing in Co-Located Design Teams Through Remote Collaboration Tool](#)", (with L. Oehlberg, J. Jones and B. Hartman), Interactive Poster, *Proceedings of the ACM 2012 Conference on Computer Supported Cooperative Work Companion*, (Feb. 11-15, 2012, Seattle Washington), ACM, pp. 183-186. (ISBN: 978-1-4503-1051-2; doi: 10.1145/2141512.2141573).

P-146 "[Showing is Sharing: Connecting Attention to Access in Design Teams to Build Shared Understanding](#)", (with L. Oehlberg and B. Hartman) *Proceedings of DIS 2012L - Designing Interactive Systems*, 2012, pp. 669-678. (ISBN: 978-1-4503-1210-3; doi: 10.1145/2317956.2318057) .

P-147 "[Lessons Learned from Developing and Evaluating a Comprehensive Digital Library for Engineering Education](#)", (with Y. Zhang and S. Li), *Proceedings of JCDL 2012, ACM-IEEE CS Joint Conference on Digital Libraries*, (June 10-14, 2012, Washington D.C.), ACM, pp. 393-394, 2012. (doi: 10.1145/2232817.2232907).

P-148 "[Geocentric Contextualized Mobile Learning with the Engineering Pathway Digital Library](#)", (with K. Ryokai), *Proceedings of the 2012 Australasian Association for Engineering Education (ASEE) Annual Conference*, 3-5 Dec. 2012.

P-149 "[Inverse Modeling Using a Wireless Sensor Network \(WSN\) for Personalized Daylight Harvesting](#)", (with R. Paulson, C. Basu and S. Poll), in M. van Sinderen, O. Postolache, and C. Benavente-Peces (Eds.), *SENSORNETS 2013: Proceedings of the 2nd International Conference on Sensor Networks*, Barcelona, Spain, 19-21 February 2013 (pp. 213-221). Portugal: SCITEPRESS.

P-150 "[Global Characterizations of Learning Styles among Students and Professionals](#)," (with K. Lau and S. Beckman), Paper I.D. 8345, *Proceedings of the ASEE International Forum*, Atlanta, GA, June 22, 2013.

P-151 "[A Comparison of Two Transdisciplinary Human-Centered Design Approaches for Poverty Alleviation](#)," (with J. Vechakul), *Proceedings of The Future of Transdisciplinary Design (TFTD13)*, June 2013.

- P-152 "Information and Communication Technologies as a Bridge between Global Designers and Local Users," (with Y. Perez, A. James, E. Carson, Jr.), *Proceedings of The Future of Transdisciplinary Design (TFTD13)*, June 2013.
- P-153 "[Human-Centric Study of Digital-Paper Transitions: Framing Design Opportunity Spaces](#)", (with E.Y. Kim, V.S. Kocsik, C.E. Basnage), *In DS 75-7: Proceedings of the 19th International Conference on Engineering Design (ICED13), Design for Harmonies*, Vol. 7: Human Behaviour in Design, Seoul, Korea, 19-22.08. 2013. August 2013. Won Reviewers's Favourite Award.
- P-154 "[Automatically Inferring Metrics for Design Creativity](#)," (with M. Fuge and J. Stroud), *Proceedings of ASME Design Engineering Technical Conference -DETC* , Volume 5: Design, Theory and Methods, DETC2013-12620, August 2013. [Pre-publication version](#).
- P-155 "[Cross-Community Design and Implementation of Engineering Tinkering Activities at a Science Center](#)", (with J. Wang), [FabLearn](#), (Stanford University, Oct. 27-28, 2013).
- P-156 "[Affordable and Personalized Lighting Using Inverse Modeling and Virtual Sensors](#)", (with C. Basu, B. Chu, J. Richards, A. Dhinakaran, and R. Martin), *Proceedings of the SPIE Smart Structures Technologies for Civil, Mechanical and Aerospace System*, Vol. 9061, 8 March 2014. doi:10.1117/12.2048681
- P-157 "[SUPERball: Exploring Tensegrities for Planetary Probes](#)", (with A.P. Sabelhaus, K. Caluwaerts, J. Bruce and V. SunSpiral), *Proceedings of the 12th International Symposium on Artificial Intelligence, Robotics, and Automation in Space (i-SAIRAS)*, June 2014.
- P-158 "[Hardware Design and Testing of SUPERball, a Modular Tensegrity Robot](#)", (with A.P. Sabelhaus, J. Bruce, K. Caluwaerts, Y. Chen. D. Lu, Y. Liu, A.K. Agogino and V. SunSpiral), *Proceedings of the WCSCM6 (6th World Conference on Structural Control and Monitoring)*, July 2014.
- P-159 "[Identifying Design Opportunity Spaces in New User Interfaces for Exoskeleton Mobility Devices](#)", (with E.Y. Kim, J. Jeong, K. Mock, and V. Kocsik), *Proceedings of DESIGN2014 (International Design)*, (eds., M. Borian, S. Mario, P. Neven, B. Nenad), May 2014, pp. 517-528.
- P-160 "[How Online Design Communities Evolve Over Time: The Birth and Growth of OpenIDEO](#)", (with M. Fuge and N. Maton) *Proceedings of the International Design Engineering Technical Conference (DETC)*, Design, Theory and Methods, ASME, August 2014 [Pre-publication version](#).
- P-161 "[User Research Methods for Development Engineering: A Study of Method Usage with IDEO's HCD Connect](#)", (with M. Fuge) *Proceedings of the International Design Engineering Technical Conference (DETC)*, Volume 7: Design, Theory and Methods, ASME, August 2014. [Pre-publication version](#).

P-162 "[Learning about Learning and Engineering: Engineers, Students and Educators Co-Design Challenges for a Science Museum](#)", (with J. Wang) *Proceedings of ASEE Annual Conference*, Paper ID #10509 June 2014.

P-163 "[Design for Development Online: An HCD Analysis of OpenIDEO](#)", (with P. Gordon and M. Fuge), *Proceedings of the ASME International Mechanical Engineering Congress*, Vol. 11: Systems, Design, and Complexity, 2014. [Pre-publication version](#).

P-164 "[Rapid Prototyping Design and Control of Tensegrity Soft Robot for Locomotion](#)", (with K. Kyunam, A.K. Agogino, D. Moon, L. Taneja, Al. Toghyan, B. Dehghani and V. SunSpiral), *Proceedings of the 2014 International Conference on Robotics and Biomimetics (ROBIO 2014)*, 2014, pp. 7-14. [Finalist for Best Student Paper Award](#).

P-165 "Co-Creation of Culinary Experience Design in the Chez Panisse Open Innovation Ecosystem," (with S. Kim and H. Chesbrough), 1st Annual World Open Innovation Conference, Dec. 4-5, 2014.

P-166 "System Design and Locomotion of SUPERball, an Autonomous Tensegrity Robot," (with A.P. Sabelhaus, J. Bruce, K. Caluwaerts, P. Manovi, R. G. Firoozi, S. Dobi, and V. SunSpiral), *Proceedings of 2015 IEEE International Conference on Robotics and Automation (ICRA)*, May 26-30, 2015, Washington State Convention Center, Seattle, Washington, <http://icra2015.org>.

P-167 "Emergent Form-Finding for Center of Mass Control of Ball-Shaped Tensegrity Robots," (with K. Kim and A.K. Agogino), [ARMS \(Autonomous Robots and Multirobot Systems\) workshop](#), (affiliated with the 14th International Conference on Autonomous Agents and Multiagent Systems - AAMAS 2015). Istanbul, Turkey, May 4-5, 2015.

P-168 "Design Roadmapping: Challenges and Opportunities," (with E.-Y. Kim and S. Yao), *Proceedings of 2015 International Conference on Engineering Design (ICED15)*, July 27-30, 2015, Milan, Italy, <http://iced2015.org/>.

P-169 "Design Talking: A Taxonomy of Design Methods in theDesignExchange," (with C. Roshuni, J. Kramer, Q. Zhang and L. Zaksorn), *Proceedings of 2015 International Conference on Engineering Design (ICED15)*, July 27-30, 2015, Milan, Italy, <http://iced2015.org/>.

P-170 "Design Practitioners' Perspectives on Methods for Ideation and Prototyping," (with S. Beckman, J. Kramer, C. Roschuni and M. Yang), *Proceedings of the 2015 Mudd Design Workshop*, Center for Design Education of Harvey Mudd College, May 2015.

P-171 "Design Thinking in Development Engineering," (with D. Levine), *Proceedings of the 2015 Mudd Design Workshop*, Center for Design Education of Harvey Mudd College, May 2015.

P-172 "Detection of Chiller Energy Efficiency Faults Using Expected Maximization," (with R.L. Hu and J. Granderson), to appear in *Proceedings of the International Design*

Engineering Conference IDETC/CIE 2015, Computers and Information in Engineering Conference (CIE), ASME.

P-173 "Mechanism Design and Simulation of an Underactuated Spine-Like Tensegrity Robot," (with A.P. Sabelhaus, P. Hylton, Y. Madaan, C.W. Yang, J. Friesen and V. SunSpiral), to appear in *Proceedings of the International Design Engineering Conference IDETC/CIE 2015*, Mechanisms and Robotics Conference, ASME.

P-173 "Design Talking: How Design Practitioners Talk About Design Research Methods," (with C. Roschuni and J. Kramer), to appear in *Proceedings of the International Design Engineering Conference IDETC/CIE 2015*, International Conference on Design Education, ASME.

P-174 "Robust Learning of Tensegrity Robot Control for Locomotion through Form-Finding," (with Kim, K., A.K. Agogino, A. Toghyan, D. Moon, L. Taneja), to appear in *Proceedings of the [International Conference on Intelligent Robots and Systems \(IROS 2015\)](#)*, Hamburg, Germany.

Foreign Language Conference Proceedings

FC-1 "Fuzzy Optimization Using Monotonic Influence Diagram with Fuzzy Languages", (with M. Arakawa), *Proc. of 72th General Conference of the Japanese Society of Mechanical Engineers*, , Vol. IV, p. 337-338, 1995.

FC-2 "Introduction of Concept Database", (with M. Arakawa), *Proc. of 6th ASME-Japan Conference on Design Engineering & System Division*, No. 96-45, p. 89- 92, 1996.

FC-3 "Collaborative Research in Engineering Education: Synthesis Coalition Study Case," (with Akamatsu, Janio, Galeno Jose Itiro e Sena, and Flora McMartin), [COBENGE 99 - XXVII Congresso Brasileiro de Ensino de Engenharia](#) (City: Natal; State: Rio Grande do Norte; Sep. 12 - 15, 1999), pp. 2241-2248. <http://www.ct.ufrn.br>

FC-4 "Cooperative Learning: Multimedia Case Studies of Engineering Design," (with Akamatsu, Janio, Rosa Maria Itiro e Bittencourt Brandon Muramatsu), [COBENGE 99 - XXVII Congresso Brasileiro de Ensino de Engenharia](#) (City: Natal; State: Rio Grande do Norte; Sep. 12 - 15, 1999), pp. 1636-1641. <http://www.ct.ufrn.br>

Technical Reports and Case Studies (Not Peer-Reviewed)

(Note: Technical reports associated with professional employment as a practicing engineer prior to joining the faculty at UC Berkeley are not listed due to their proprietary nature.)

R-0. "The Mexican Church at Catorce: Temple of Miracles," (with George Agogino and Mercedes Agogino), *Pursuit*, Vol. 18, No. 4, 1985, pp. 181-183.

R-1. "Research on Expert Systems in Flexible Manufacturing," in *Progress Report: The Microelectronics Innovation and Computer Research Opportunities (MICRO) Program*, (MICRO Executive Committee, 7514 Boelter Hall, UCLA, Los Angeles, CA 90024, 1985-86)1987, pp. 1-7.

R-2. "Object-Oriented Data Structures for Reasoning about Functionality, Manufacturability, and Diagnosability of Mechanical Systems," (with R. Guha), prepared for presentation at the 1988 NSF Workshop on Features in Design and Manufacturing, University of California at Los Angeles, Feb. 26-28, 1988; based on an invited presentation at the 1987 ASME Design Automation Conference, Boston, MA, August 29, 1987.

R-3. "Research on Expert Systems in Automated Manufacturing and Process Control," in *1986-87 Progress Report: The Microelectronics Innovation and Computer Research Opportunities (MICRO) Program*, (MICRO Executive Committee, 7514 Boelter Hall, UCLA, Los Angeles, CA 90024, 1986- 87), 1988, pp. 5-12.

R-4. "Object-Oriented Data Structures for Designing by Features: Integrating Functionality and Geometry," (with R. Guha), prepared for presentation at: Design Theory 88: 1988 NSF Grantee Workshop on Design Theory and Methodology, June 2-4, 1988.

R-5. "AI/OR Hybrid Systems for Optimal Design," (J. Cagan and P. Jain), *Proceedings of the KOREA-U.S.A. Engineering Design Seminar* (Oct. 13-19, 1988, Seoul National University, Korea), pp. 29-45.

R-6. "Dynamic Mechanical System Design using Qualitative and Symbolic Reasoning," (with Y.-J. Kim), Research Report to the Lawrence Livermore National Laboratory, Dec. 1988.

R-7. "A Fault Location System for a Time of Flight Detector Array," (with Hall, D, W. Greiman, D. Olson, R. Paasch, A. Padganokar, and E. Schroeder), LBL Report #27482, *Computing in High Energy Physics*, 1989.

R-8. "Research in Intelligent Manufacturing Systems, Knowledge Acquisition and Representation, and Design Theory and Methods," NSF Presidential Young Investigator Award, 1987/88 Progress Report, July 1988.

R-9. "Research in Intelligent Manufacturing and Design Methods," NSF Presidential Young Investigator Award, 1988/89 Progress Report, July 1989.

R-10. "Research on Influence Architectures for Distributed Real Time Control," (with K. Ramamurthi), in *1988/89 Progress Reports: The Microelectronics Innovation and Computer Research Opportunities (MICRO) Program*, (ed., Prof. William S.C. Chang, Chairman, MICRO Executive Committee, Mail Code R-009, UC San Diego, La Jolla, CA 92093-0409), May 1990, pp. 5-8.

R-11. "Research in Intelligent Manufacturing and Design Methods," NSF Presidential

Young Investigator Award, 1989/90 Progress Report, July 1991.

R-12. "Hypermedia History for the Design of a Computer Workstation for the Disabled: Application of the DesignSCRIBE (Structured Capture and Retrieval Information Base for Engineering Design) System", (with Bradley, S., B. Kuo and C. Johnson) HyperCard(TM) 2.0 stack.

R-13. "Research on Integrating Neural Networks with Influence Diagrams," (with M.-L. Tseng), Final report to the Institute for Scientific Computing Research, Lawrence Livermore National Laboratory, Nov. 1990.

R-14. "Final Report to the Department of Education: Expert Systems Applied to Rehabilitation Engineering: A New Approach to the Evaluation of Control", (with S. Hsi), 1990.

R-15. "Systematic Curricular Reform", Annual Report, Vol. III, May 15, 1991; Annual Report to NSF for Synthesis: A National Engineering Education Coalition.

R-16. "[Development of an On-Line Expert System: Cycle Chemistry and Demineralizer Operation Advisor](#)," (with D.M. , R.E. Henry, Y.-J. Kim, B. Frogner, M. A. Blanco, and S.M. Divakaruni) ISA/90 International Conference (Oct. 14-19, 1990, New Orleans, LA), Instrument Society of America.

R-17. "Signal Validation for Expert System Development," (with Y-J. Kim), in *Proceedings of Expert System Applications for the Electric Power Industry* (Sept. 9-11, 1991; Boston, MA), Electric Power Research Institute.

R-18. Agogino, A.M., K. Naassan, and M.L. Tseng, "Intelligent Sensor Validation for Process Monitoring and Control," MICRO Report 90-003, *The Microelectronics Innovation and Computer Research Opportunities (MICRO) Program*, (ed., Prof. William S.C. Chang, Chairman, MICRO Executive Committee, Mail Code R-009, UC San Diego, La Jolla, CA 92093- 0409), 1992.

R-19. "Concurrent Design Concept Database," (with S. R. Bradley), MICRO Report 90-004, *The Microelectronics Innovation and Computer Research Opportunities (MICRO) Program* , (ed., Prof. William S.C. Chang, Chairman, MICRO Executive Committee, Mail Code R-009, UC San Diego, La Jolla, CA 92093-0409), 1992.

R-20. "Retaining Female Engineering Students; Will Early Design Experiences Help?," (with M.C. Linn), Viewpoint Editorial, *NSF Directions*, National Science Foundation, Vol. 5, No. 2, May-June 1992, pp. 8-9. [Citations](#)

R-21 "Quality in Engineering Education," Report of NSF Workshop, Dec. 1992. (Co-chaired with Bob Ritchie, HP; published by the National Science Foundation.)

R-22. "The Synthesis Coalitions Experiments in Information Technology," with A.P. Ingraffea), *Proceedings of the Eighth National Conference on Computing in Civil*

Engineering and Geographic Information Systems Symposium, (Hyatt Regency Dallas Hotel, Dallas, Texas, June 7-9, 1992.

R-23. "Final Report for Sensor Validation for HEATXPRT(TM) (Heat Rate Degradation Expert System Advisor)," (with Y.J. Kim, B. Wood, and P. Jain) June 1, 1992.

R-24. "Review of HEATXPRT(TM) Knowledge Base Design Documentation", Final Report, (with Y.J. Kim, B. Wood, and P. Jain) Feb. 25, 1993.

R-25. "[National Engineering Education Delivery System \(NEEDS\)](#)", (with S. Sheppard, J. Harris, L. Genalo, K. Mink, J. Krishnagopalan, L. Genalo, D. Martin and J. Saylor), *Proceedings of the Frontiers in Education `93 Conference*, (Ed., Lawrence P. Grayson), IEEE and ASEE, 1993, pp. 592-600.

R-26. "NEEDS: Expanding the Role of the Computer in Engineering Education," (with A.R. Ingraffea and Sheri Sheppard), *Computer Methods and Advances in Geomechanics, Proceedings of the Eight International Conference of the Association for Computer Methods and Advances in Geomechanics*, (Siriwardane & Zaman (eds., Balkema, Rotterdam, ISBN 90 5410 380 9), 1994, pp. 189-195.

R-27 "Concept Database: A Design Information System for Concurrent Engineering with Application to Mechatronics Design", (with W.H. Wood, A. Varma, B. Chidambaram, and Z. Huang), *Proceedings of the 1995 NSF Design and Manufacturing Grantees Conference*, Society of Manufacturing Engineers, 1995, pp. 1-2. [Citations](#)

R-28 "[Conceptual Design Database To Support Life Cycle Design Of Mechatronic Products: Integrating Design Tools From Industry](#)," (with W.H. Wood), Final Report 1993-94 for MICRO Project 93-003, 1995.

R-29 "[Intelligent Sensor Validation For On-Line Process Monitoring, Diagnosis And Control](#)", (with S. Alag), Final Report 1993-94 for MICRO Project 93-004, 1995.

R-30 "Engineering Education Reform in the 1990s," *Syllabus*, Vol. 8, No. 6, 1995, pp. 38-40.

R-31 "A Methodology for Intelligent Sensor Validation, Sensor Fusion, and Sensor Fault Detection for Dynamic Systems: Application to Power Plants - Part I & II," (with S. Alag), Final Report to GE, 95-0301-1, 1995.

R-32 "[Intelligent Sensor Validation and Sensor Fusion for Reliability and Safety Enhancement in Vehicle Control](#)", (with S. Alag and K. Goebel), [MOU132, Final Report, UCB-ITS-PRR-95-40, California PATH Research Report](#), 1995. (Download [ps](#) or [pdf](#) version of report. [Citations](#)).

R-33 "Synthesis Coalition: Summary Progress Report, Year 5 (1994-1995)," submitted to the National Science Foundation, 1995.

- R-34 "[Sharing Courseware Resources through the NEEDS \(National Engineering Education Delivery System\) Database.](#)" (with B. Muramatsu, P.A. Eibeck, M. Ramirez, A. O. Oladipupo, and J. Huston), *Proceedings of Frontiers in Education FIE95*, ASEE/IEEE, pp. 3b5.1-3b5.3. [Citations.](#)
- R-35 "[Conceptual Design Database to Support Life Cycle Design of Mechatronic Products: Integrating Design Tools From Industry.](#)" (with W. H. Wood, A. Varma, and B. Chidambaram), Final Report to Micro 1994/95, 1996. Also see "[Web-Based Tools for Engineering Design.](#)" (with A. Varma, A. Dong, B. Chidambaram and W. H. Wood), in Workshop on Agents and Web-based Design at the Fourth International Conference on Artificial Intelligence in Design, Stanford University, 1996. [Citations.](#)
- R-36 "Concept Database: A Design Information System for Concurrent Engineering with Application to Mechatronics Design," (with W. H. Wood, A. Varma, and B. Chidambaram), Proceedings of the 1996 NSF Design and Manufacturing Grantees Conference, Jan. 2-5, 1996, NSF, pp. 1-2. (See accompanying presentation slides.)
- R-37 "[A Comprehensive Strategy for Longitudinal Vehicle Control with Fuzzy Supervisory Expert System.](#)" (with Pushkin Kachroo, Masayoshi Tomizuka), 1995 IEEE International Conference on Systems, Man and Cybernetics. [Citations.](#)
- R-38 "Redesign in a Manufacturing Environment," (with B. Chidambaram), *Proceedings of the Conference on Agile and Intelligent Manufacturing Systems*, RPI (CD ROM and WWW versions: <http://www.eamri.rpi.edu>), 1996.
- R-39 "Learning Synthesis Knowledge for Rapid Product Design," (with A. Varma), *Proceedings of the Conference on Agile and Intelligent Manufacturing Systems*, Electronics Agile Manufacturing Research Institute, RPI (CD ROM and WWW versions: <http://www.eamri.rpi.edu>), 1996.
- R-40 "Synthesis Coalition: Annual Report, Year 1 (1996-1997)," submitted to the National Science Foundation, Oct. 1, 1996.
- R-41 "[The Concept Database: A Design Information System for Concurrent Engineering with Application to Mechatronics Design.](#)" (with J. Enrique Barreto, Bala Chidambaram, Andy Dong, Anil Varma and William H Wood III, Ph.D.), *Proceedings of 6th Conference on Design Engineering & System Division.*, No. 96-45, p. 89-92, 1997. <http://best.me.berkeley.edu/~bala/nsf-97.html>.
- R-42 "[Intelligent Sensor Validation and Fusion for Vehicle Guidance Using Probabilistic and Fuzzy Methods.](#)" (with Kai Goebel and Satnam Alag), Final Report for PATH MOU 157, [PATH Report #D97-29](#), 1997.
- R-43 "Synthesis Coalition: Annual Report, Year 2 (1997-1998)," submitted to the National Science Foundation, Oct. 1, 1997.
- R-44 "[Intelligent Diagnosis Based on Validated and Fused Data for Reliability and Safety](#)

[Enhancement of Automated Vehicles in an IVHS.](#)" (with Susan Chao, Kai Goebel, Satnam Alag, Bradley Cammon and Jiangxin Wang,) Final Report for PATH MOU 231, [PATH Report #UCB-ITS-PRR-98-17](#). [Citations](#).

R-45 "Using the Internet to Learn Engineering Design with Simple Machines: Results of a Pilot Study with Middle School Students," (with A. McKenna), presented at AERA 98 (San Diego).

R-46 "The Concept Database: A Design Information System for Concurrent Engineering with Application to Mechatronics Design," Final Report to NSF Grant No. DDM-9300025, 1998.

R-47 "Final Project Report for Interactive MESA: A K-12 Interactive University Project," July 1998. URL: <http://best.me.berkeley.edu/~aagogino/IU/IU.final.report.html>.

R-48 Agogino, Alice, "A Hands-On Discussion of Dissection: Coalitions Lessons Learned," FIE 98, IEEE 0-7803-4762-5/98, Nov. 1998, p. 700. [Citations](#)

R-51 "[The National Engineering Education Delivery System: A National Digital Library for Engineering Education](#)," (with B. Muramatsu), D-Lib Magazine, April 1999, Vol. 5, Issue 4, ISSN: 1082-9873. [Citations](#)

R-52 "[Innovative Uses of Engineering Courseware Available through NEEDS-The National Engineering Education Delivery System](#)". (with Flora McMartin and Brandon Muramatsu). *Proceedings of FIE99*, (Frontiers in Education Conference; San Juan, Puerto Rico; 10-14 November 1999), ASEE/IEEE, CD ROM ISBN #0-7803-5646-2, pp. 12a2-13. (extended abstract only).

R-53 "[Warranty and Maintenance Decision Making for Gas Turbines](#)," (with Susan Y. Chao and Zu-Hsu Lee), *Proceedings of AI in Equipment Maintenance, Service & Support*, (AAAI Spring Symposium, March 22-24, 1999; Stanford, CA). [Citations](#).

R-54 "[Using the National Engineering Education Delivery System as the Foundation for Building a Test-Bed Digital Library for Science, Mathematics, Engineering and Technology Education](#)," Final Report for NSF Grant IIS-9817406, May 31, 2000. (See [Findings](#) and [Activities](#).)

R-55 "[What Students Say About Learning Physics, Math and Engineering](#)," (with Ann McKenna and Flora McMartin), *Proceedings of the 30th ASEE/IEEE Frontiers in Education Conference*, Oct. 18-21, 2000, pp. T1F-9. ISBN # 0-7803-6424-4/00. [Citations](#).

R-56 "[Towards a Digital Learning Community for Engineering Education](#)," (with Brandon Muramatsu Flora McMartin), *Proceedings of the 30th ASEE/IEEE Frontiers in Education Conference*, Oct. 18-21, 2000, pp. F3D-13. ISBN # 0-7803-6424-4/00.

R-57 "[Aggregation of Direct and Indirect Positioning Sensors for Vehicle Guidance](#)," (with S. Chao, J. Wang and X. Deng), PATH Final Report, MOU 322, [UCB-ITS-](#)

[PRR-2000-24](#), Dec. 2000.

R-58 "[How Can Information Technology \(IT\) Enhance Undergraduate Science, Mathematics, Engineering & Technology \(SME&T\) Education?](#)", PKAL [2001 Change Agents Roundtable](#), jointly sponsored by Sigma Xi, The Scientific Research Society, March 2 - 4, 2001, Exxon/Mobil Corporate Headquarters, Irving, Texas.

R-59 "[Using Interactive Theater to Enhance Classroom Climate](#)," (with Edith Ng and Carla Trujillo), *Proceedings of WEPAN/NAMEPA 01* (April 21 - 24, 2001, Alexandria, Virginia).

R-60 "[Creating Online Faculty Collaboration to Develop Engineering Education Computer Learning Materials](#)," (with Andrew Hill and Flora McMartin), *Proceedings of FIE 01*, 2001, CD ROM 0-7803-6669-7, IEEE/ASEE, p. F3F-10. .

R-61 "[Descriptions of Engineering Education: Faculty, Student and Engineering Practitioner Perspectives](#)," (with Sheri Sheppard and M. Kathleen Silva), FIE 2001 Workshop, Reno, Nevada.

R-62 "[The Development of a National Science, Mathematics, Engineering and Technology Education Digital Library](#)," (with Andy Dong, Flora McMartin and Brandon Muramatsu) *Global Digital Library Development in the New Millennium: Fertile Ground for Distributed Cross-Disciplinary Collaboration*, (Ching-chih Chen, Ed., Beijing, China: Tsinghua University Press), 2001, pp. 1-12.

R-63 "[Interactive Theater Program](#), Final Report for Grant # EIF98.5 of the Engineering Information Foundation", (with Carla Trujillo), November 5, 2001.

R-64 Final Report NSF Grant IIS-9980116, "Developing a Prototype National Digital Library for Science, Mathematics, Engineering and Technology Education," Oct. 22, 2002.

R-65 "Gender Bias in Faculty Hiring, Retention and Promotion", Feb. 18, 2002. Symposium Session, Co-Chaired with S. Malcom (Director, Directorate for Education and Human Resources, American Association for the Advancement of Science) Co-Chairs AAAS 2002 Symposium, *AAAS 2002 Proceedings*.

R-66 "Bringing the Educational Experience of NEEDS and SMETE.ORG to NSDL", AAAS Annual Meeting: Science as a Way of Life, (13-18, Feb. 2003, Denver, CO), CD ROM.

R-67 Heroes, Gender and Ethics, AAAS Annual Meeting: Science as a Way of Life, (13-18, Feb. 2003, Denver, CO), CD ROM.

R-68 A Web Services Approach to Federated Search Across Digital Libraries, (with Dong, A., E. Fixler, M.J. Koning-Bastiaan, and S. Shamseldin). Working Paper # 03-0103-3. Berkeley Expert Systems Technology Laboratory, 6102 Etcheverry Hall, UC Berkeley, Berkeley, CA 94720-1740.

R-69 Wu, J., E. Fixler, and A.M. Agogino, Translating Between Native Java Objects and LOM: A Tools to Assist Digital Libraries Exchange Information. Working Paper # 03-0203-3. Berkeley Expert Systems Technology Laboratory, 6102 Etcheverry Hall, UC Berkeley, Berkeley, CA 94720-1740.

R-70 [MEMS Smart Dust Motes for Designing, Monitoring and Enabling Efficient Lighting](#). Final report to UC Project MICRO (2002-03), 2004.

R-71 Expanding the National Engineering Education Delivery System as the Foundation for an On-Line Engineering Education Community. Final Report for NSF Grant # EEC-9872570 (1998-2003), 2004.

R-72 ["Characterizing and Enhancing Team Performance in Cross-Functional Student Design Teams"](#), (with S. Beckman, J. Creech, S. Song, and L. Speer), extended abstract to the NCIIA 2004, National Collegiate Inventors and Innovators Alliance Conference.

R-73 ["Enhancing Interoperability of Collections and Services,"](#) Final Report, NSF Award DUE-0127580, December 2004.

R-74 ["Developing a Learner-Centered Metathesaurus for Science, Mathematics, Engineering and Technology Education,"](#) Final Report, NSF Award DUE-0121743, December 2004.

R-75 ["Year 2 Annual Report"](#) for NSF Grant NSF Grant # CCR-DES/CC-0306557, "MEMS/NEMS Design Automation and Synthesis," (with C. Sequin), March 2005.

R-76 ["Interim Report"](#) for NCIIA (National Collegiate Inventors and Innovators) grant, "Invention and Innovation in New Product Development: Freshman/Sophomore, Junior/Senior, Graduate Course Sequence (with S. Beckman), Nov. 2005.

R-77 ["Intelligent Commercial Lighting: Demand-Responsive Conditioning and Increased User Satisfaction"](#), University of California Energy Institute. Development & Technology. Paper EDT-007, September 26, 2005.

R-78 "Optimized Design of MEMS by Evolutionary Multi-objective Optimization with Interactive Evolutionary Computation, (with. R. Kamalian and T. Takagi) GECCO 2006. Late breaking research session.

R-79 ["Integrated Systems Health Monitoring Using Smart Dust Mote Sensor Network,"](#) (with I. Tumer, NASA Collaborator), Final Report to NASA AMES, 2006. BEST Lab Working Paper #06-0304-P. [Citations](#)

R-80 ["Year 3 Annual Report"](#) for NSF Grant NSF Grant # CCR-DES/CC-0306557, "MEMS/NEMS Design Automation and Synthesis," (with C. Sequin), March 2006.

R-81 ["Year 1 Annual Report"](#) for NSF Grant NSF Grant # DUE-0532922, "A Comprehensive Pathway for K-Gray Engineering Education", June 2006.

- R-82 ["Final Report: Cost-Effective Shuttle Tracking Services,"](#) (with Berkeley Innovation student E-Team), [National Collegiate Inventors and Innovators Alliance](#).
- R-83 ["Gender Bias in Academe"](#), Last Word: Editorial, *ASEE Prism Magazine*, November 2006, Vol. 16, No. 3. (invited)
- R-84 ["Efficient Lighting by Sensing and Actuating with MEMS 'Smart Dust Motes': A Feasibility Study"](#), (with J. Granderson and Y.J. Wen), Final Report, Energy Innovations Small Grant (EISG) Program, Grant #03-20, 2006.
- R-85 Year 2 Annual Report for NSF Grant # DUE-0532922, ["A Comprehensive Pathway for K-Gray Engineering Education"](#), June 2007.
- R-86 [Year 2 Summary Updates and Accomplishments](#), Pathway PIs/ Core Integration Meeting, August 1-2, 2007.
- R-87 [Annual Report Nuggets for the Practices, Aggregation, Infrastructure, and Retrieval Service \(PAIRS\)](#), Demonstration Project, NSF Grant # CNS 0634338, April 2008.
- R-88 ["A Comprehensive Pathway for K-Gray Engineering Education"](#), Year 3 Annual Report for NSF Grant # DUE-0532922, July 2008.
- R-89 Poster Session, NSDL Grantees Meeting, Engineering Pathways 2008 Highlights, (with J. Tront) September 30 - October 2, 2008. [Download flyer](#).
- R-90 Agogino, A.M. and J. Sullivan, Year 3 Summary Updates and Accomplishments, Pathway PIs/ Core Integration Meeting, 2008.
- R-91 "A Human Centered Approach to Co-design Culturally-Sensitive and Sustainable Housing with the Pinoleville Pomo Nation", (with R. Ryan), Abstract and Presentation, American Indian Science and Engineering Society National Conference.
- R-92 CARES: Community Assessment of Renewable Energy and Sustainability, Interim Report, (with Berkeley Innovation student E-Team), National Collegiate Inventors and Innovators Alliance (NCIIA), April 2008.
- R-93 [Year 4 Annual Report for NSF Grant # DUE-0532922](#), "A Comprehensive Pathway for K-Gray Engineering Education", (with Co-PIs), June 2009.
- R-94 ["Teaching and Designing Technology for Diversity"](#), final report for the National Science Foundation Director's Award for Distinguished Teaching Scholars, NSF DTS Grant: DUE-0428935.
- R-95 ["Design strategies and preliminary prototype for a low-cost arsenic removal system for rural Bangladesh"](#), (with J.L. Mathieu, A.J. Gadgil, S. Qazi and K. Kowolik), Lawrence Berkeley National Laboratory as LBNL-2696E, September 14, 2009. Updated version of P-128.

R-96 Annual Report, "Expanding the Accessibility of NSDL for Mobile Learning," (with K. Ryokai), NSF, September 2009.

R-97 Annual Report, NSF, "Collaborative Proposal: BPC-DP: Practices Aggregation, Infrastructure, and Retrieval Service for Broadening Participation in Computing (PAIRS)" (with Co-PIs), March 2010.

R-98 Year 5 Annual Report for NSF Grant # DUE-0532922, "A Comprehensive Pathway for K-Gray Engineering Education", (with Co-PIs), June 2010.

R-99 Annual Report, "Pilot: Meta4acle - A Software Tool for Generating Metaphors, Stimulating Creativity and Framing Solutions," NSF, July 2010.

R-100 Annual Report, "Expanding the Accessibility of NSDL for Mobile Learning," (with K. Ryokai), NSF, September 2010.

R-101 Annual Report, "Collaborative Research: Sustaining the Pathway for K-Gray Engineering Education," (with Co-PIs), September 2010.

R-102 Final Report, NSF, "Collaborative Proposal: BPC-DP: Practices Aggregation, Infrastructure, and Retrieval Service for Broadening Participation in Computing (PAIRS)" (with Co-PIs), March 2011.

R-103 Annual Report, "Pilot: Meta4acle - A Software Tool for Generating Metaphors, Stimulating Creativity and Framing Solutions," NSF, July 2011.

R-104 Final Report for NSF Grant # DUE-0532922, "A Comprehensive Pathway for K-Gray Engineering Education", (with Co-PIs), September 2011.

R-105 Annual Report, "Expanding the Accessibility of NSDL for Mobile Learning," (with K. Ryokai), NSF, September 2011.

R-106 Annual Report, "Collaborative Research: Sustaining the Pathway for K-Gray Engineering Education," (with Co-PIs), September 2011.

R-107 Final Report, "Invention and Innovation in New Product Development: Freshman/Sophomore, Junior/Senior, Graduate Course Sequence," (with Co-PI Sara Beckman), NCIIA grant, November 2011.

R-108 Final Report, Center and Green IT for Native CARES (Native American Community Assessment for Renewable Energy and Sustainability), CITRIS Seed Grant, March 2012.

R-109 Annual Report, "Pilot: Meta4acle - A Software Tool for Generating Metaphors, Stimulating Creativity and Framing Solutions," NSF, July 2012.

R-110 Final Report, "Expanding the Accessibility of NSDL for Mobile Learning," (with

K. Ryokai), NSF, September 2012.

R-111 Final Report, "Collaborative Research: Sustaining the Pathway for K-Gray Engineering Education," (with Co-PIs), September 2012.

R-112 Annual Report, "EAGER: TheDesignExchange: Characterizing, Mapping and Interacting with Industry on User-Focused Design Methods," NSF, June 2013.

R-113 Final Report, "CNIC: U.S.-Danish Planning Visit for Research on Smart Products and People on the Smart Grid," NSF, June 2013.

R-114 Final Report, (co-authored with student team) "inSense: User-centric Model Predictive Lighting Commissioning System", Max Tech and Beyond Design Competition for Ultra-Low-Energy-Use Appliances and Equipment (AY 2012-2013), June 2013.

R-115 *Chez Panisse: Building an Open Innovation Ecosystem*, (with Henry Chesbrough and Sohyeong Kim), Berkeley-Haas Case Series and also in the [Harvard Business Review](#), 2014.

R-116 *Chez Panisse: Building an Open Innovation Ecosystem*, (with Henry Chesbrough and Sohyeong Kim), [California Management Review](#), Vol. 56, No. 4, Summer 2014, pp. 144-171.

R-117 "Model Predictive Smart Lighting Commissioning System for Emerging Demand Management", EISG Final Report, California Energy Commission, August 2014.

Courseware (Instructional Software) and Web Applications

W-1 "[The 1991 Human Powered Vehicle: A Multimedia Case Study in Engineering Design](#)," (with S. Hsi), Multimedia Multidisciplinary Case Studies CD ROM, HyperCard format, Synthesis Coalition 1993 (v. 1.0).

W-2 "[The IBM Proprinter: A Multimedia Case Study in Engineering Design](#)," (with J. Evans), Multimedia Multidisciplinary Case Studies CD ROM, Synthesis Coalition, 1993 (v. 1.0), 1995 (v. 2: http version).

W-3 "[Blockstacking](#)," (with S. Hsi and M. C. Linn), Multimedia Multidisciplinary Case Studies CD ROM, (<http://www.needs.org> on the NEEDS Database), Synthesis Coalition, 1993 (v. 1.3).

W-4 "[Mattel Color Spin: A Multimedia Case Study in Engineering Design](#)," (with A. Varma), Multimedia Multidisciplinary Case Studies CD ROM, Synthesis Coalition, 1993 (v. 0.75), 1995 (v. 1.0: http version).

W-5 "[Saturn Automobile: A Multimedia Case Study in Engineering Design](#)," (with I.

- Zook), Multimedia Multidisciplinary Case Studies CD ROM, Synthesis Coalition, 1993 (v. 0.75), 1995 (v. 1.0: http version).
- W-6 "[Cyclone Grinder: A Multimedia Case Study in Engineering Design](#)," (with C. Carlstrom), Multimedia Multidisciplinary Case Studies CD ROM, Synthesis Coalition, 1993 (v. 0.75), 1995 (v. 1.0: http version).
- W-7 "[Disk Drive Case Study](#)," (with S. Nagaraj), HyperCard format, Synthesis Coalition, 1995 (v. 0.5).
- W-8 "Motor Tutorial," (with Z. Huang), Synthesis Coalition, ([NEEDS Database](#)), 1995 (v. 1.0).
- W-9 "[Display Object](#)," (with J. R. Osborn), Synthesis Coalition, 1996 (v. 1.43).
- W-10 "[Virtual Disk Drive Design Studio](#)," (with D. Yu), CD ROM, Synthesis Coalition, 3112 Etcheverry Hall, UC Berkeley (Sampler and html version available on the NEEDS/Engineering Pathway Digital Library, 1997 v. 1.0b5. Winner of a [1997 Premier Courseware Award for instructional software](#), 1997.
- W-11 "[People, Product and Strategies](#)," (with Robert Stanard), Case Study, v. 3, 1998.
- W-12 "[Matlab Extensions to the Virtual Disk Drive Design Studio](#)," (with Rebecca Richkus and David Tang), 1999.
- W-13 [NEEDS - National Engineering Education Digital-library System](#). A digital library formed with links to online learning materials in engineering and related areas of science and math. NEEDS was developed by the [Synthesis Engineering Education Coalition](#) in the early 1990s prior to the WWW, using X-windows. We later merged with [Teach Engineering](#) to form the [Engineering Pathway digital library](#). Based on its NEEDS foundation, the Engineering Pathway is the oldest educational digital Library in existence today.
- W-14 [SMETE.org](#). A digital library of resources in STEM (Science, Technology, Engineering and Mathematics) Education. Migrated to inform the [National STEM Education Digital Library \(NSDL\)](#) and was part of the merger that formed the [Engineering Pathway digital library](#).
- W-15 [EngineeringPathway.com](#) integrates the NEEDS.org digital library, with resources primarily for higher education, with the TeachEngineering K-12 digital library to develop the Engineering Pathway, a portal to the most comprehensive collection of resources for all types of K-Gray engineering education. The digital library also hosts [engineering education community pages](#).
- W-16 [K-12EngineeringEducation.com](#). Engineering Education "Today in History" Blog.

Published Invited Talks (Not Peer-Reviewed)

T-1 "Integrating Design and Manufacturing Education within Broader Societal Goals," Testimony to the House of Representatives, Committee on Science, Space, and Technology, May 12, 1992. (Published in the *Congressional Record*).

T-2 "Improving Retention through Curricular Reform, *Proceedings of the Engineering Education: Curriculum Innovation and Integration*, (eds., E. Aung and S. Carmi, Jan. 5-10, 1992, Santa Barbara, CA), Engineering Foundation, pp. 27-32.

T-3. "The Synthesis Coalition: Information Technologies Enabling a Paradigm Shift in Engineering Education," (with W.H. Wood), Keynote talk, *Proceedings of Hyper-Media in Vaasa94*, pp. 3-10.

URL: <http://best.me.berkeley.edu/~best/papers/finland/text.html>

T-4 "The National Engineering Delivery System (NEEDS): A Multimedia Digital Library of Courseware," (with B. Muramatsu), *Proceedings of the 1996 ASEE International Conference on Engineering Education and Practice*, ASEE CD-ROM, 1996.

T-5 "[Information in the Design Process](#)," invited talk to and published in the [Proceedings of the Frontiers of Engineering: Reports on Leading Edge Engineering Research](#), National Academy of Engineering, Sept 19-21. 1996.

T-6 "Concepts for the SMETE (Science, Mathematics, Engineering, Technology Education) Library," Report of the NSF Science, Mathematics, Engineering, and Technology Education Library Workshop (July 21-23, 1998), NSF 99-112, pp. 32-33.

T-7 "[Invited Panel - Engineering and Computer Science Education in the Era of Globalization](#)", (with Ted E. Batchman, Frank Bullen, Leah H. Jamieson, Wayne C. Johnson and Arthur B. Western), Extended Abstract in *Proceedings of the Frontiers in Education Conference 2005*, ASEE/IEEE, Session F2B (October 19-22, 2-5, Indianapolis, IN).

T-8 "[Finding One's Way](#)", Keynote talk at Mudd Design Workshop, May 2011. Published in the *International Journal of Engineering Education*, Special Issue on Design Education: Innovation and Entrepreneurship, Vol. 28, No. 2, 2012, pp. 249-250.

Unpublished Invited Talks (Not Peer-Reviewed)

(Papers, slides or handouts may be available upon request.)

U-1. "1stPRINCE: Innovative Design from First Principles," (with J. Cagan) presented at AAAI88 AI in Design Workshop.

U-2. "Deterministic Monotonic Influence Diagram," (with N. Michelena), presented at the

1989 TIMS/ORSA meeting, NY.

U-3 "Comments on *The Competitive Edge: Research Priorities for U.S. Manufacturing and Improving Engineering Design: Designing for the Competitive Advantage*," Manufacturing Studies Board, National Research Council, National Academy of Sciences Building, Washington, D.C., July 16, 1991.

U-4 "Women, Engineering and Project Synthesis," Committee on the Role and Status of Women in EDUCOM, San Diego, California, Oct. 17, 1991.

U-5 "The National Science Foundation Engineering Education Coalitions," ASEE Pacific Southwest Section Annual Meeting and Conference, UC Berkeley, Oct. 24, 1991.

U-6 "Synthesis: An NSF Coalition to Improve Undergraduate Engineering Education and Develop a National Engineering Education Delivery System," MacSciTech Scientific and Engineering Applications of the Macintosh Technical Conference & Exposition, Sir Francis Drake Hotel, San Francisco, California, Jan. 15-17, 1992.

U-7 "Synthesis Coalition," (with A.P. Ingraffea and T. Henderson), National Science Board, Education Committee, NSF Headquarters, March 19, 1992.

U-8 "Integrating the Undergraduate Engineering Curriculum," ASME International Conference, Honolulu, Hawaii, April 5-8, 1992.

U-9 "The Impact of Demographic Change on Students Engineering and Graduating From Engineering Programs," 44th California Symposium on Transportation Issues, Oakland Airport Hilton, May 14, 1992.

U-10 "Integrating Science and Technology Education and Research," Statement before the Presidents Council of Advisors on Science and Technology (PCAST), University of California at Berkeley, July 15, 1992.

U-11 "Multimedia Case Studies Project of the Synthesis Coalition," Computing: The Transformation of Engineering Exhibits, National Academy of Engineering Annual Meeting, National Academy of Sciences Building, Washington, D.C., Sept. 29-30, 1992.

U-12 Agogino, A.M. and J. Evans, "Multimedia Case Studies of Design in Industry," presented at ASME Design Theory and Methodology '93 Conference, Albuquerque, New Mexico, 1992. [Citations citations](#).

U-13 "A Networked Multimedia Courseware Database for Engineering Education," Keynote talk at TBEEC '93 (Technology Based Engineering Education Conference), Santa Fe, New Mexico, Nov. 19-20, 1993.

U-14 "The Role of Multimedia in Design Education and Research," Overview for 94 DTM, American Society of Mechanical Engineers, Minneapolis, MN, Sept. 11-14, 1994.

U-15 "Engineering Education for 2020 and Beyond," Workshop on Systematic Engineering Education Reform: An Action Agenda, Sponsored by the National Science Foundation, Arlington Renaissance Hotel, Arlington, Virginia, July 11, 1995.

U-16 "National Engineering Education Delivery System (NEEDS)," Workshop on Re-Engineering Education, Rensselaer Polytechnic Institute, Troy, NY, Aug. 22, 1995.

U-17 "NEEDS - The National Engineering Education Delivery System, 1995 NTU Engineering Faculty Forum, Satellite Broadcast, October 10, 1995, 1-2 p.m. PDT (video tape available).

URL: <http://needs.org/needsinfo/presentations/NTU95/index.html>

U-18 "Multimedia Case Studies to Teach Engineering Design/ Digital Library of Engineering Courseware," Presentation to UC Regents, Oct. 19, 1995.

U-19 "Information Technologies Enable a Paradigm Shift in Engineering Education," International Symposium on Engineering Education and Evaluation, Osaka, Japan, Nov. 27, 1995.

U-20 "Reforming Undergraduate Engineering," plenary lecture at the UC Science, Engineering and Mathematics Education Conference, Arnold and Mabel Beckman Center of the National Academies of Science and Engineering, Jan. 26- 27, 1996.

U-21 "Multimedia and Internet: Enabling New Modes of Learning," Chancellors Forum, Feb. 2 1996.

U-22 "Engineering Education: Can we Make Changes," (with Joseph Bordogna, Assistant Director of Engineering, NSF; John H. McMasters, Senior Principal Engineer, Boeing Commercial Airplane Group; Winfred M. Phillips, Dean, College of Engineering, University of Florida and President of Accreditation Board for Engineering and Technology), The Annual Convocation of Professional Engineering Societies and the National Academy of Engineering, National Academy Building, Washington D.C., May 21, 1996.

U-23 "Synthesis Coalition Initiatives in Mechanical Engineering at U.C. Berkeley," Workshop on Mechanical Engineering Undergraduate Education for the Next Twenty Years, Royal Sonesta Hotel, Cambridge, Massachusetts, Oct. 8, 1996.

U-24 "Instructional Technology and the Use of the WWW for Improving K-12/Undergraduate Education," UC President Atkinsons visit to UC Berkeley campus, Nov. 21, 1996.

U-25 "Research on Distributed Intelligence: Sensor Fusion and Design Information Environments," NSF Director Neal Lanes visit to the UC Berkeley campus, Dec. 5, 1996.

U-26 "Integration of Research and Education," (with Angelica Stacy, Prof. of Chemistry), NSF Director Neal Lanes visit to the UC Berkeley campus, Dec. 5, 1996.

- U-27 "Multimedia and Internet Enabling New Modes of Learning in K- 14," Colloquium on Using the Internet for Instruction and Outreach, January 14, 1997.
URL: http://www1.needs.org/~agogino/IU/IU.presentation_ToC.html
- U-28 "A Multimedia Digital Library of Courseware, 1997 Berkeley Multimedia Research Center," Retreat on New Media Teaching and Learning Techniques, Berkeley, California, January 15-16, 1997.
URL: <http://needs.org/needsinfo/presentations/BMRC97/index.html>
- U-29 "Issues in Engineering Education," National Academy of Engineering, Commission on Engineering and Technical Systems, Arnold and Mabel Beckman Center, Irvine, California, Feb. 11, 1997.
- U-30 "Research on Distributed Intelligent Systems: Information Value Theory Applied to Mechatronic Design," Industrial Liaison Program, College of Engineering, UC Berkeley, March 12, 1997.
- U-31 "Synthesis Coalition: Multimedia and the Internet Enabling New Modes of Learning," (with Brandon Muramatsu, NEEDS Project Manager), 1997 All University Conference on Teaching and Learning, Los Angeles, California, March 24-25, 1997.
URL: <http://www.needs.org/needsinfo/presentations/AUC97/index.html>
- U-32 "[Effective Processes to Give Engineering Educators Easy Access to Quality-Reviewed Electronic Courseware](#)," (with B. Muramatsu, P. Eibeck, and J. Stern) Engineering Education Innovators Conference, Arlington, Virginia, April 7, 1997.
[Citations](#)
- U-33 "Music and Mechanics: Instructional Technology on Display," UC Alumni Legislative Conference, Sacramento, California, April 15, 1997.
- U-34 "[Internet and Multimedia Enabling New Modes of Learning and Outreach to K-12](#)," Keynote Speaker at the [UC Technology & Outreach Conference](#), UC Irvine, May 21, 1997.
- U-35 "Instructional Technology and Distance Learning at Cal," presentation at Cal Parents Weekend, Sept. 27, 1997.
- U-36 "The Synthesis Coalitions Assessment Strategy", NACME Forum 97: Crisis and Commitment - Engineering Strikes Back, Seattle, WA., Oct. 3, 1997.
- U-37 "The Future of Instructional Technology at Berkeley: CCCPB-IT Committees Goals", Berkeley Multimedia Research Center Retreat, Jan. 12-13, 1998.
- U-38 "The Synthesis Coalitions Curricular Innovations for the Freshman Year," (with Edgar Blevins), NSF Engineering Coalitions Conference, Feb. 27-28, 1998, Orlando, FL.
- U-39 "Intelligent Computer-Aided Mechatronic/MEMS Design," talk at UC Berkeley ILP

98, March 11, 1998.

U-40 Discussant, Center for Innovative Learning Technologies Panel, AERA (American Educational Research Association), April 13, 1998.

U-41 "Engineering Education Goes Multimedia", (with B. Muramatsu), talk at Cal Day 98 (April 18, 1998). URL: <http://www.needs.org/engineering/info/presentations/calday98/calday98.html>.

U-42 "Interactive MESA", Interactive MESA Seminar, April 23, 1998.

U-43 "Post-Proposition 209: Admissions, Outreach and Student Services for Underrepresented Engineering Students", Engineering Advisory Board meeting, May 19, 1998. Also presented at the Berkeley Engineering Fund, Board of Directors, June 3, 1998.

U-44 "The Concept Database: A Web-based Design Information System for Mechatronics and MEMS Design," Harbin Institute of Technology, China, June 10, 1998.

U-45 "Multimedia Case Studies of Engineering Design: Synthesis Engineering Education Innovations," Harbin Institute of Technology, China, June 11, 1998.

U-46 "Diversity in Engineering Education", talk for the NSF New Century Scholars Workshop at Stanford University, Aug. 6, 1998.

U-47 "Educational Technology and Distance Learning at UC Berkeley," Invited presentation to Chancellor Berdahl and distinguished visitors from Saudi Arabia, Nov. 30, 1998. URL: <http://www.needs.org/engineering/info/presentations/ucb-etdl-1298/index.html>

U-49 "Overview of Instructional Technology on Campus" and "Use of Instructional Technology in the School of Engineering," Undergraduate Affairs Leadership Meeting, March 15, 1999.

U-50 "Balancing Work and Family", panel speaker at the NSF New Century Scholars Workshop at Stanford University, Aug. 5, 1999.

U-51 "[Visions for a Digital Library for Science, Mathematics, Engineering and Technology Education \(SMETE\)](#)", Fourth ACM Conference on Digital Libraries, Berkeley, CA, Aug. 11-14, 1999. [Citations citations](#).

U-52 "A National Digital Library for Science, Mathematics, Engineering, and Technology Education," Educause 99, Teaching and Learning Poster Session, Oct. 27, 1999.

U-53 "Using the National Engineering Education Delivery System as the Foundation for Building a Test-Bed Digital Library for Science, Mathematics, Engineering and Technology Education," (with Flora McMartin), NSF Digital Library Initiative 2 Meeting, Cornell University, Oct. 17-18, 1999.

- U-54 "Teaching, Learning and Libraries on Internet Time," Society of Women Engineers - Evening with Industry, Nov. 19, 1999, Berkeley, CA.
- U-55 ["Teaching, Learning and Using Libraries on Internet Time,"](#) Coalition for Networked for Information, Phoenix, Arizona, Dec. 14, 1999.
- U-56 "A Prototype National Digital Library for Science, Mathematics, Engineering and Technology Education", TechEd 2000, Las Vegas, Nevada, March 7, 2000.
- U-57 "Information Technology and the Digital Divide" at the Berkeley Pledge Spring Roundtable for Academic Support and Enrichment Services, "Student Services and New Technology: Time to Get Real!" May 4, 2000.
- U-58 "Developing a Prototype National Digital Library for Science, Mathematics, Engineering and Technology Education," NSF DLI All-Projects Meeting, June 12-13, 2000.
- U-59 "A National Digital Library for Science, Mathematics, Engineering and Technology Education," International Conference at Stratford-upon-Avon, England, Coalition for Networked Information.
- U-60 "Women in Engineering - 21st Century", International Forum on Women in Engineering and Science, World Engineers Convention, 19-21 June 2000, Hannover, Germany. (Invitation by German government and AAAS).
- U-61 "A National Digital Library for Science, Mathematics, Engineering and Technology Education," Gordon Conference on Innovations in College Chemistry Teaching (Clarion Ventura Beach Hotel, Jan. 6-11, 2001).
- U-62 "Demystifying Copyright and Fair Use for Teaching," (with Brian Donohue and Gary Handman), UC Berkeley, March 13, 2001.
- U-63 "Women in Academia," Womens Faculty Club, UC Berkeley, March 22, 2001.
- U-64 "Demonstrating the Core Integration System for the National SMET Education Digital Library", (with Andy Dong), Information Access Seminar, School of Information Management & Systems, UC Berkeley, March 23, 2001.
- U-65 "Demonstrating the Core Integration System for the National SMET Education Digital Library" Coalition for Networked Information, April 9, 2001, Washington, D.C.
- U-66 "Gender and Science/Technology Digital Learning Resource Workshop", (with O. Somolui), Association of Women in Science, 2001 (abstract published in AWIS Magazine, Vol. 31, No. 1, pp. 13-14).
- U-67 "Successful Partnering" at the "Forging Library Partnerships in the Networked Age," (with L. Zia), Clark Kerr Campus, UC Berkeley, Nov. 2, 2001.

U-68 "Evolutionary Synthesis of MEMS Design and Applications", Distinguished Lecturer Series, Mechanical Engineering Department, University of Maryland, College Park, Feb. 19, 2002.

U-69 "Gender Bias in Faculty Hiring, Retention and Promotion", University of Maryland, Baltimore County, Feb. 20, 2002.

U-70 Testimony to California State Senate Select Committee on Government Oversight: "A Hearing to Assess Progress Made by the University of California to Reduce Gender Disparity in Faculty Hiring", March 11, 2002.

U-71 "Engineer of 2020: Visions of Engineering Work and Education in the New Century," Keynote talk to the Engineering Directorate, Lawrence Livermore National Laboratory as part of the *Engineering Opportunities in the 21st Century Conference*, March 12, 2003.

U-72 "Computer Aided Design for Microelectronic Mechanical Systems (MEMS): Designs that Learn From Nature", Lecture for E92: Perspectives in Engineering, Oct. 27, 2003.

U-73 Engineer of 2020: Visions of Engineering Work and Education in the New Century, Mechanical Engineering Departmental Seminar, Spring 2003.

U-74 "Computer Aided Design for Microelectronic Mechanical Systems (MEMS): Designs that Learn From Nature", Lecture for E92: Perspectives in Engineering, Oct. 27, 2003.

U-75 "Research on Educational Digital Libraries," Stanford University, Center for Design Research, Dec. 10, 2003.

U-76 "Creativity in the Innovation Process," ITRI Researchers, 290 HMB, Dec. 17, 2003.

U-77 National Academy of Engineering Engineer of 2020, Plenary Speaker, ASME Department Heads Conference, March 5-9, 2004. <http://www.asme.org/education/dh/me2004/2.htm>

U-78 Engineer of 2020: Women Engineers in the New Century, Women in Science and Engineering Seminar, Foothill Residence Halls, March 11, 2004.

U-79 Design Theory & Methods: a Mechanical Engineering Perspective, Berkeley Institute of Design, May 14, 2004. <http://www.eecs.berkeley.edu/BID/>

U-80 "Ubiquitous Wireless Infrastructure to Support Mobile Learning," HP/CITRIS 2004 Workshop on Planetary-Scale Applications, Wed., May 26, UC Berkeley.

U-81 "Development and the Design Process", Engineers for a Sustainable World Internship Training, West Coast Session, June 17, 2004.

- U-82 "Review of Engineer 2020: Phase I Report", National Academy of Engineering, July 22, 2004. [PDF version \(12.9 MB\)](#); [MS PowerPoint \(2.2 MB without movies\)](#).
- U-83 "Engineer 2020 NAE Project: Implications for ABET", ABET Industry Advisory Board meeting, August 27, 2004.
- U-84 "The Engineer of 2020: Global Visions of Engineering in the New Century," Keynote Address to the SOMIM (Mexican Society of Mechanical Engineering) Conference, August 2004.
- U-85 "New Product Development: A UC Berkeley Perspective," Universidad Nacional Autonoma de Mexico (UNAM), September, 2004.
- U-86 "The Engineer of 2020: Global Visions of Engineering in the New Century," Keynote Address Georgia Tech Advisory Board (GTAB), October 2004.
- U-87 "[Automating Keyphrase Generation for Text Document Collections](#)," (with Jia-Long Wu and William H. Wood), Poster Session, NSDL Grantees Meeting, November 2004.
- U-88 "The Next Phase of NAE's Engineer of 2020 Project: Preparing Engineers for the Future", Mechanical Engineering Conference, March 11-15, 2005, San Diego, California.
- U-89 "[The Engineer of 2020 Project: Global Visions of Engineering in the New Century](#)," Colloquium, Department of Mechanical Engineering, March 18, 2005, UC Riverside, Riverside, California.
- U-90 "[The Engineer of 2020](#)", presented at The Jasper Summit - Consulting Engineering: the Next 15 Years, Association of Consulting Engineers of Canada, June 23-25, 2005, Jasper, Alberta.
- U-91 "Engineering Education - Present and Future", panel, National Science Board Workshop on "[Engineering Workforce Issues and Engineering Education: What are the Linkages](#)", ([Federal Register, Vol. 70, No. 187](#)), October 20, 2005, M.I.T. [presentation \(pdf\)](#)
- U-92 "The Engineer of 2020: Global Visions of Engineering Practice and Education," Corporate Technical Fellows Meeting, Bechtel Engineering San Francisco Offices, March 2, 2006.
- U-93 "Women in Engineering in the Year 2020: Possible, Probable, and Preferable Scenarios," Stanford University, March 9, 2006.
- U-94 "Customer/Community-Based Design", Presented at class on Design for Sustainable Communities, Spring 2006. Download slides on [Customer/Community-Based Design](#) and Slides on the [Segura Case Study](#).
- U-95 "Technology, Pedagogy and Design: Global Visions for the New Century", June 1,

2006, University of Michigan.

U-96 [Tribute to Chancellor Denise Denton](#), June 29, 2006 University of Santa Cruz.

U-97 "Is Science Color-Blind?", Keynote Talk to the 2006 Summer Research Symposium: University of California, Berkeley's Leadership Excellence through Advanced Degrees Program & the NSF California Alliance for Minority Participation in the Sciences Program, August 10, 2006.

U-98 ["Understanding Women in Universities Around the Globe: Perspective from the University of California at Berkeley"](#) (with M.A. Mason and A. Stacy). Presentation at the [International Alliance of Research Universities \(IARU\)](#), a consortium of 10 research-intensive institutions on four continents, September 9, 2006, St. Johns College, University of Cambridge, U.K. Download [slides](#).

U-99 "Beyond Bias and Barriers: Women in Academic Science and Engineering". Presentation and discussion with the Society of Women in the Physical Sciences, Le Conte Hall, UC Berkeley, Oct. 10, 2006.

U-100 "Beyond Bias and Barriers: Women in Academic Science and Engineering". Presentation and discussion at a campus-wide symposium at the University of Texas at Austin. Scroll down this link to get a copy of [the slides and the poster for the event](#). Sponsored by the Office of the Provost, the Center for Women's and Gender Studies, Faculty Women's Organization, Women in Engineering, and Women in the Natural Sciences. The talk concerned a recent National Academies' report of the same title. Press coverage: [Women underrepresented in professorships despite high grad rates, study shows](#) article in *The Daily Texan* by Philip Jankowski, January 26, 2007.

U-101 "Design for Sustainable Communities: User Needs", Presented at class on Design for Sustainable Communities, Spring 2007. [Download slides](#).

U-102 "K-12 Resources in the NSDL Engineering Pathway," AAAS Annual Meeting, Feb. 16, 2007. [Download Slides](#).

U-103 "Higher Education Resources in the NSDL Engineering Pathway," AAAS Annual Meeting, Feb. 17, 2007. [Download slides](#).

U-104 ["Women and Men in the Academy: Beyond Bias and Barriers,"](#) Yale University, April 12, 2007.

U-105 "Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering," Smith College, April 13, 2007.

U-106 ["Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering,"](#) APS (American Physical Society), April 15, 2007. [Download Slides](#). [Citations citations](#).

- U-107 "Interactive Evolutionary Computation for MEMS Design", Industrial Engineering Seminar, University of Oklahoma, April 20, 2007.
- U-108 "Educating the Engineer of 2020", College of Engineering Seminar, University of Oklahoma, April 20, 2007. [Download Slides](#)
- U-109 Invited talk at the APS (American Physical Society) workshop titled: [*Gender Equity: Strengthening the Physics Enterprise in Universities and National Laboratories.*](#) Maryland, May 6, 2007. [Download Slides](#)
- U-110 "Engineer of 2020 and the Gathering Storm", Opening Panel, Mudd Design Workshop VI "Design and Engineering Education in a Flat World," 23 May 2007. [Download slides](#)
- U-111 "Teaching Women Engineering", [ASME Think Tank Summit](#), June 10, 2007.
- U-112 "Engineering Pathway Education Digital Library", ABET Workshop at ASEE Annual Meeting, June 24, 2007.
- U-113 ["Selecting and Evaluating Digital Learning Materials for Engineering and Pre-Engineering Education"](#), (with Tront, J. and B. Muramatsu), Workshop at ASEE Annual Meeting, June 24, 2007.
- U-114 "Women and Men in the Globalizing University: Mapping Gender in University Data," International Alliance of Research Universities (IARU), Yale University, April 21, 2008. [Download Slides](#)
- U-115 "Design for Sustainable Communities: User Needs," ER291-002/E 298A: Design for Sustainable Communities, (Dr. Ashok Gadgil), UC Berkeley, Spring 2008. [Download Slides](#)
- U-116 "Human-Centered Sustainable Product Design," Northwestern University, April 22, 2008. [Download Slides](#)
- U-117 "Educating Engineers for a Flat World: Implications Across the Academy," Presidential Talk, Northwestern University, April 22, 2008. [Download Slides](#)
- U-118 "Sustainable Product Design Using Project Based Learning", One week short course (20 segments) taught in India as part of the IUCEE project: Indo-US Collaboration for Engineering Education. Mysore, India, July 2008. ([Download slides and links](#)).
- U-119 "Interdisciplinary Opportunities for Women" ([download slides](#)). Panel on "A look into the future and the increasing complexity of interdisciplinary careers" at the National Academies Workshop [From Doctorate to Dean or Director: Sustaining Women through Critical Transition Points in Science, Engineering, and Medicine](#) September 18-19, 2008, Washington, DC.

U-120 "Enabling the Adoption of ICT for Sustainable Business Transformations," [Sustainable Innovations Workshop](#), HP Labs, October 20, 2008. [Download Slides](#)

U-121 "The Challenge of a Responsible Supply Chain", Presidents' Circle, National Academy of Engineering, Sustainability in Business, Science and Policy Google, Mountain View, CA, November 5-7. 2008. [Download slides.](#)

U-122 "CARES, Community Assessment for Renewable Energy and Sustainability: CARES Collection on the Engineering Pathway", Dar Al Hekma College, Saudia Arabia, January 6, 2009. [Download slides.](#)

U-123 "Designing Technology for Girls and Women", Dar Al Hekma College, Saudia Arabia, January 6, 2009. [Download slides.](#)

U-124 "Sustainable Product and Building Design", Dar Al Hekma College, Saudia Arabia, January 6, 2009. [Download slides.](#)

U-125 "Research to Support the Development of a Sustainability Engineering Infrastructure in the Kingdom of Saudi Arabia", (with Nezar Alsayyad, Ryan Shelby, and Yael Perez), Poster Session, UC Berkeley, January 2009. [Download slides.](#)

U-126 "How to use the NAE Grand Challenges to Change the Diversity in the ME Discipline?", presented at the [2009 ASME International Mechanical Engineering Education Conference](#), March 28, 2009. [Presentation Slides.](#)

U-127 "Beyond Bias and Barriers: Fulfilling the Potential of Women to Meet the Grand Challenges of Engineering", SWE (Society of Women Engineers) Regional Awards Banquet, May 2009, University of California at Berkeley. [Presentation Slides.](#)

U-128 "John McMasters - A Legacy of Sustaining Innovations in Biomimetic Aircraft Design and Engineering Education", Mudd Design Workshop VII, May 29, 2009. [Abstract](#) (with Mera Horne); [Presentation Slides.](#)

U-129 [Keynote Talk at the WIRES \(Connecting Women and Completing the Circuit of International Research Collaboration\) Conference](#), June 3, 2009, Barcelona Spain. [Download presentation slides \(pdf\).](#)

U-130 "CARES, Community Assessment for Renewable Energy and Sustainability," June 25, 2009, presentation to the Jordan, Renewable Energy Group, State Department arranged visit to UC Berkeley.

U-131 "Green Hat & Engineering Pathway", (with K. Ryokai and L. Oehlberg), Session on Mobile & Augmented Reality Cyberlearning at the [Cyberlearning Tools for STEM Education Conference](#), March 8, 2011, Berkeley, California. Green Hat was one of the mobile learning programs highlighted in the PBS KQED coverage: [Video Games and Simulations Bring Science to Life](#), KQED, March 10, 2011.

- U-132 "[Distributed AI and Sustainable Design: Smart Products for the Smart Grid](#)", Keynote Presentation at the AAAI 2011 Spring Symposium on Artificial Intelligence and Sustainable Design. News story: [A Role for Artificial Intelligence in Sustainable Design](#).
- U-133 "[Greening The Internet of Things: Smart Products in a Smart Grid](#)", *Distinctive Voices* [talk at the National Academy of Engineering](#) by Alice M. Agogino, August 2011. [Download Slides](#).
- U-134 "Smart People, Products and Buildings on the Smart Grid: Case Study in Smart Lighting," Tyndall Research Center, Cork, Ireland, June 2012.
- U-135 "Communities that Enable Smart People, Products and Buildings on the Smart Grid," Panel on Nurturing the Computational Sustainability Community, [3rd International Conference on Computational Sustainability](#), July 4-6, 2012, Denmark.
- U-136 "Enabling Smart People, Products and Buildings on the Smart Grid," [3rd International Conference on Computational Sustainability](#), July 4-6, 2012, Denmark.
- U-137 "[Human-Centered Design for Sustainability](#)," presentation to UNESCO, Paris, France, August 22, 2012.
- U-138 "[Innovations in Context: Longitudinal Study of Alumni from a Multidisciplinary New Product Development Course](#)," presentation to Frontiers of Engineering Education, National Academy of Engineering, Beckman Center, Irvine, CA, October 15, 2012.
- U-139 "Greening The Internet of Things: Smart Products in a Smart Grid," [Distinguished Lecture Series](#), Singapore Institute of Design and Technology, Singapore, November 9, 2012.
- U-140 "Human-Centric User Research to Identify Disruptive Opportunities in Convergent Paper and Digital Use," Samsung Innovation Center, San Jose, CA, June 13, 2013.
- U-141 "Human-Centric User Research to Identify Disruptive Opportunities in Convergent Paper and Digital Use," Inria Saclay Ile-de-France Research Center, Ecole Polytechnique Universitee, Paris-Sud, France, June 26, 2013.
- U-142 "History of Wicked Problems - Working with Horst Rittel on Interdisciplinary Design," [Wicked Problems in Socio-Ecological Systems: Symposium and Workshop](#), Oct. 26-27, 2013, Berkeley, CA. [Slides with notes](#).
- U-143 "Sustainable Tribal Buildings and Renewable Energy Systems," [CITRIS \(Center for Information Technology in the Interest of Society\) Research Exchange Seminar](#), Oct. 30, 2013, Berkeley, CA. [YouTube Video of Webcast](#).
- U-144 Spoke at the [kick-off panel](#) at [Oakland's first Global Sustainability Jam](#), Nov. 23, 2013. The Jam is a non-profit activity organized by an international network of service and sustainability designers.

U-145 [Valuing Design](#), Spring Design Innovation Seminar Series, College of Engineering, UC Berkeley, May 2, 2014. [Slides](#), YouTube [Video](#), and Abby Van Muijen's fab [Visual Design Notes](#) of the seminar.

U-146 Awardee and Keynote Speaker at [Assemblymember Nancy Skinner STEM Women of the Year](#), June 26, 2014. [Slides](#).

U-147 "The Value of Design on Innovation", Roundtable Discussion, CEOs of InBeta Group, Brazil, July 16, 2014. [Slides](#)

U-148 "Framing Insights from Design Research", Lecture to engineers, designers and marketing, InBeta Group, Brazil, July 16, 2014. [Slides](#)

U-149 "Can Sustainable Design Drive Innovation, Reduce Costs and Increase Quality?", [Innovation, Competitiveness and Design \(ICS\)](#), Brazil, July 17, 2014. [Slides](#) or [Video](#).

U-150 "Greening the Internet of Things: Smart Products in a Smart Grid", [Innovation, Competitiveness and Design \(ICS\)](#), Brazil, July 18, 2014. [Slides \(pptx\)](#) or [Slides \(pdf\)](#) or [Video Part 1 \(YouTube\)](#) and [Video Q&A \(YouTube\)](#)

U-151 "Development Engineering", [TechCon 2014](#): University Innovators Transcend Academic Silos to Present Cutting-Edge Collaborations for Global Development. [Slides \(pdf\)](#)

U-152 "How Sustainable Design Can Drive Innovation Globally", Engineers for a Sustainable World, UC Berkeley, February 4, 2015. [Slides \(pdf\)](#).

U-153 "Development Engineering: Graduate Academic Programs Start Up in the Center", [Board of Trustees, Blum Center for Developing Economies](#) April 20, 2015. [Slides \(pptx\)](#)

U-154 ["Soft Robots Using Compliant Tensegrity Structures and Soft Sensors"](#), (with Chen, L.-H., P. Keegan, M. Yuen, R.K. Kramer, A.K. Agogino and V. Sunspiral) ICRA Workshop on Soft Robotics, Abstract.

U-155 "Seeking Solutions: Maximizing American Talent by Advancing Women of Color in Academia", [ASEE Panel \(with Valerie E. Taylor \[Chair\], Edward Lazowska, Lydia Vila-Komaroff\)](#), June 16, 2015. [Slides](#).

U-156 "National Academies Report on Career Choices of Women Engineers", [ASEE Distinguished Lecture](#), June 17, 2015. [Slides](#).

Patents and Patent Citations

1. U.S. Patent 5043929: *Closed-form kinematics*, Kramer, Glenn A.; Barrow, Harry G.; Agre, Philip E.; Technologies ; 1991 **Cites J-7**
2. U.S. Patent 5410496: *Using degrees of freedom analysis to solve topological*

- constraint systems for construction geometry in a computer aided design (cad)* , Bolon, Craig; Kanumury, Mahesh; Keyrouz, Walid T.; Kramer, Glenn A.; Moore, Eric A.; Pabon, Jahir A.; Schlumberger Technologies 1992 **Cites J-7**
3. U.S. Patent 5251144: *System and method utilizing a real time expert system for tool life prediction and tool wear diagnosis*, Ramamurthi, Krishnamoorthy; Texas Instruments ; 1993 **Cites J-3, J-8 and P-23**
 4. U.S. Patent 5253189: *Qualitative kinematics* , Kramer, Glenn A., Schlumberger Technologies; 1993 **Cites J-7**
 5. U.S. Patent 5297057: *Method and apparatus for design and optimization for simulation of motion of mechanical linkages*, Kramer, Glenn A.; Barrow, Harry G.; Turner, Patrick R.; Bodner, Michael E.; Cooper, Jeffrey G.; 1995 **Cites J-7**
 6. U.S. Patent 5452238: *Method for solving geometric constraint systems*, Kramer, Glenn A.; Keyrouz, Walid T.; Pabon, Jahir A.; Schlumberger Technologies; 1995 **Cites J-7**
 7. U.S. Patent 5510995: *Sculptured surface synthesis based on functional design constraints*, Oliver, James H.; Iowa State University; 1996 **Cites P-15**
 8. U.S. Patent 6086617: *User directed heuristic design optimization search*, Waldon, Scott; Powell, Dave; Tong, Siu; Engineous Software; 2000 **Cites J-3**
 9. German Grant DE200138094: "[Apparatus and method for generating and expanding the knowledge base of an expert system](#)" Wolfgang Baierl, Andreas Dr. Westendorf, Aug. 4, 2000. **Cited R-32**
 10. U.S. Patent 6181975: *Industrial process surveillance system*, Gross, Kenneth C.; Wegerich, Stephan W; Singer, Ralph M.; Mott, Jack E.; ARCH Development Corporation; 2001 **Cites R-29**
 11. U.S. Patent US7366639 B2 "[Methods for establishing alerts and/or alert limits for monitoring mechanical devices.](#)" David Lacey Doel, Charles Eric Lethander, Heidi Leoti Davidz, General Electric Company, April 24, 2008. **Cites J-35**
 12. [U.S. Patent Application 11/099,786: Engineering design system using human interactive evaluation.](#) Alice M. Agogino, Raffi Kamalian, Hideyuki Takagi, 2005. Patent was questioned for further investigation and the UC Berkeley campus decided not to pursue. Interestingly, the patent application has been cited in other patent applications. [Citations.](#)
 13. U.S. Patent US20070005541 A1 [Methods for Validation and Modeling of a Bayesian Network](#), Sarmad Sadeghi, Afseneh Barzi, Navid Sadeghi, Jan 4, 2007. **Cites Agogino (1998) but really should have cited P5 (1996)**
 14. U.S. Patent US7366639 B2 "[Methods for establishing alerts and/or alert limits for monitoring mechanical devices.](#)" David Lacey Doel, Charles Eric Lethander, Heidi Leoti Davidz, General Electric, Apr 29, 2008. **Cites J-35**
 15. U.S. Patent US7398211 B2 "[Method and apparatus for performing planbased dialog.](#)" Kuansan Wang, Microsoft, Jul 8, 2008. **Cites my course publication: "The Logic of Probability Theory"**
 16. U.S. Patent US7469547 B2 "[Arrangement for detecting the position of a damper blade using a wireless communication sensor.](#)" Matthew D. Cook, Siemens Building Technologies, Inc., Dec. 30, 2008. **Cites P-90 and R-70**
 17. U.S. Patent US7552032 B2 "[Method and system for automated design.](#)" Matthew D. Cook, Siemens Building Technologies, Inc., Jun 23, 2009. **Cites US20060225003 A1**

18. U.S. Patent US7469547 B2 "[Vehicle information processing system for content recommendation using Bayesian network models.](#)" Nobuhiro Mizuno, Hirotoishi Iwasaki, Yoichi Motomura, Denso It Laboratory, Inc., Sep. 14, 2010. **Cites R-32**
 19. U.S. Patent //us7884732 B2 "[Wireless network control for building facilities.](#)" Charles A. Huizenga, UC Berkeley, Feb 8, 2011. **Cites P-90**
 20. U.S. Patent US20110056294 A1 "[MEMS resonant accelerometer having improved electrical characteristics.](#)" Claudia Comi, Alberto Corigliano, Barbara Simoni, STMicroelectronics, Milano, Italy, March 10, 2011. **Cites J-42**
 21. U.S. Patent US7925384 B2 "[Location-based provisioning of wireless control systems.](#)" Charles A. Huizenga, Alex Do, Michael Corr, Dale Fong, Josh Mooney, Adura Technologies, Inc., Apr 12, 2011. **Cites P-90**
 22. U.S. Patent EP20110799844 "[Resonant biaxial accelerometer structure of the microelectromechanical type.](#)" Claudia Comi, Alberto Corigliano, Barbara Simoni, STMicroelectronics, Milano, Italy, May 31, 2012. **Cites J-42**
 23. U.S. Patent US8239170 B2: "[Complex signal decomposition and modeling.](#)" Stephan W. Wegerich, Smartsignal Corporation, Aug 7, 2012 **Cites R-29**
 24. U.S. Patent WO2012070021 A1 "[Intelligence in distributed lighting control devices.](#)" Charles Huizenga, Alex Do, Adura Technologies, Jan. 29, 2013. **Cites P-90**
 25. U.S. Patent US8593073 B2 "[Apparatus and methods for interactive illumination.](#)" Matthew Aldrich, Mark Feldmeier, Joseph Paradiso, MIT, Nov. 26, 2013. **Cites P-102**
 26. U.S. Patent US20130339918 A1 "[Microelectromechanical system design and layout.](#)" Jason V. Clark, Dec. 19, 2013. **Cites P-79, P-80, P-87**
 27. U.S. Patent US8620853 B2 "[Monitoring method using kernel regression modeling with pattern sequences.](#)" James P. Herzog, Smartsignal Corporation, Dec. 31, 2013. **Cites R-29**
 28. U.S. Patent US8660980 B2 "[Monitoring system using kernel regression modeling with pattern sequences.](#)" James P. Herzog, Smartsignal Corporation, Feb 25, 2014. **Cites R-29**
 29. U.S. Patent US8671756 B2 "[MEMS biaxial resonant accelerometer.](#)" Claudia Comi, Alberto Corigliano, Barbara Simoni, STMicroelectronics, Milano, Italy, MAR 18, 2014 **Cites J-42**
-

Last updated: 6 July 2015