BRIEF CURRICULUM VITAE

Leah H. Jamieson

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Education:

B.S. (Mathematics)	1972	M.I.T.
M.A. (Electrical Engineering and Computer Science)	1974	Princeton University
M.S.E. (Electrical Engineering and Computer Science)	1974	Princeton University
Ph.D. (Electrical Engineering and Computer Science)	1977	Princeton University

Professional Experience:

Aug. 1976 – June 1982	Assistant Professor, School of Electrical Engineering, Purdue University
July 1982 – July1986	Associate Professor, School of Electrical Engineering, Purdue University
Jan. 1985 – Dec. 1985	Visiting Scientist, Computer Science Laboratory, SRI International, Menlo Park, California (sabbatical)
June 1986 – Aug. 1986	Visiting Scientist, Computer Science Laboratory, SRI International, Menlo Park, California
Aug. 1986 – Apr.2002	Professor, School of Electrical Engineering / School of Electrical and Computer Engineering, Purdue University
Jan. 1990 – Aug. 1994	Graduate Coordinator, School of Electrical Engineering, Purdue University, West Lafayette, Indiana
Aug. 1994 – Aug. 1996	Director of Graduate Admissions, School of Electrical Engineering / School of Electrical and Computer Engineering, Purdue University, West Lafayette, Indiana
June 1996 – Dec. 2002	Co-Director of the Center for Engineering Projects in Community Service (EPICS), Schools of Engineering, Purdue University, West Lafayette, Indiana
1999 – 2006	Co-Director of the National EPICS Program
2002 – 2006	Ransburg Professor of Electrical and Computer Engineering, Purdue University
June 2002 – Dec. 2002	Interim Head, School of Electrical and Computer Engineering, Purdue University

2003 – 2006	Director, EPICS: Engineering Projects in Community Service, Purdue University
2004 – 2006	Associate Dean for Undergraduate Education, College of Engineering, Purdue University
2004 – Present	Professor of Engineering Education (courtesy appointment), Purdue University
2006 – Present	Ransburg Distinguished Professor of Electrical and Computer Engineering, Purdue University
2006	Interim Dean, College of Engineering, Purdue University
2006 – Present	John A. Edwardson Dean, College of Engineering, Purdue University

Major Awards and Honors

Anita Borg Institute for Women and Technology Women of Vision for Social Impact Award, May 2007.

Elected Fellow of the IEC (International Engineering Consortium), January 2007.

One of 15 women in the inaugural class of Women Pioneers of Purdue University, Purdue University Council on the Status of Women, August 2006.

U.S. National Academy of Engineering Bernard M. Gordon Prize for Innovation in Engineering and Technology Education ‘‘For innovations in the education of tomorrow’s engineering leaders by developing and disseminating the Engineering Projects in Community Service (EPICS) program,’’ co-recipient, with Edward J. Coyle and William C. Oakes, February 2005.

Elected to the United States National Academy of Engineering ‘‘For innovations in integrating engineering education and community service,’’ February 2005.

IEEE Signal Processing Society 2003 Meritorious Service Award, May 2004.

Inducted into Purdue’s Book of Great Teachers, August 2003.

Profiled in the ‘‘People’’ column of *Science Magazine*, ‘‘Engineering with a Social Conscience,’’ Vol. 301, No. 5630, July 11, 2003, p. 164.

The EPICS Program was featured in the PBS documentary *Communities Building Community*, produced by WFYI, Indianapolis, April 24, 2003.

House Resolution ‘‘to honor Professor Leah Jamieson for being named 2002 Indiana Professor of the Year’’ adopted by the Indiana General Assembly, March 27, 2003.

First Annual Team Excellence Award in the Schools of Engineering, Purdue University, presented to the EPICS Team (Leah H. Jamieson, Edward J. Coyle, William C. Oakes, and Pamela R. Brown), March 2003.

First Annual Governor’s Award for Outstanding Volunteerism, presented by the Governor of Indiana to the EPICS Program, January 2003.

Indiana Professor of the Year, Carnegie Foundation and the Council for Advancement and Support of Education, November 2002.

National Science Foundation Director’s Award for Distinguished Teaching Scholars, November 2001. Member of the initial class of seven Distinguished Teaching Scholars.

Harriet B. Rigas ‘‘Outstanding Woman Engineering Educator’’ Award, IEEE Education Society, sponsored by Hewlett-Packard, October 2000.

Violet Haas Award, Council on the Status of Women at Purdue University, March 2000.

IEEE Third Millennium Medal, January 2000.

One of 15 charter members of the American Association for Higher Education (AAHE) - Campus Compact Service Learning Consulting Corps, 2000.

2000 Thomas Ehrlich Faculty Award for Service Learning Finalist, with Edward J. Coyle.

Helen B. Schleman Gold Medallion: ‘‘For outstanding contribution and concern for women students, encouragement of women in academic and professional areas, leadership and service within and outside the University, and scholarship and character,’’ Purdue University, April 1999.

Named a member of the IEEE Computer Society Golden Core for service to the Society, January 1998.

1998 Boeing Outstanding Educator Award Finalist, with Edward J. Coyle.

Class of 1922 Annual Award for Outstanding Innovation in ‘‘Helping Students Learn,’’ Purdue University, 1997, with Edward J. Coyle.

1997 Chester F. Carlson Award for Innovation in Engineering Education from the American Society for Engineering Education (ASEE), with Edward J. Coyle.

One of 18 women profiled in the Careers Booklet *Women in Computer Science* published in 1996 by the Computing Research Association’s Committee on the Status of Women in Computing Research.

IEEE Computer Society Distinguished Visitor, 1990-94.

IEEE Acoustics, Speech, and Signal Processing Society Distinguished Lecturer, 1990-91.

Selected Keynote Talks

‘‘Forces Driving Information Technology Research into the 21st Century,’’ *11th International Conference on Parallel and Distributed Computing Systems (PDCS-98)*, Chicago, Illinois, September 1998.

‘‘Engineering, Community, Passion, and Balance,’’ *2002 Grace Hopper Celebration of Women in Computing*, Vancouver, British Columbia, October 2002.

‘‘The Case for Engineering Service Learning,’’ *2006 Conference on Service Learning in Engineering*, sponsored by the NSF and hosted by the NAE, Washington, DC, May 2006.

‘‘Engineering Education for the Changing World,’’ *DesignCon 2007*, January 2007.

‘‘Experiencing Engineering’’ *2009 American Society for Engineering Education (ASEE) Annual Conference*, Honolulu, Hawaii, June 2007.

‘‘Changing the Face of Engineering: Emerging Opportunities,’’ *Women in Engineering Program Advocates Network (WEPAN) Annual Conference*, Orlando, Florida, June 2007.

‘‘Who Will Become and Engineer?’’ *Frontiers in Education 2007*, Milwaukee, Wisconsin, October 2007.

‘‘Who Will Become and Engineer?’’ *International Symposium on Women Engineers and Future Society*, Seoul, Korea, November 2007.

‘‘Who Will Become and Engineer?’’ *IEEE-VDE International Conference on Meeting the Growing Demand for Engineers and their Educators, 2010-2020*, Munich, Germany, November 2007.

‘‘A Path to Leadership’’, *Senior TechLeaders: Leadership, the Final Frontier*, Atlanta, Georgia, June, 2008.

‘‘Who Will Become and Engineer?’’ *2008 Women in Science, Technology and Engineering Workshop*, sponsored by the IEEE and the China Association for Science and Technology, Beijing, China October 2008.

Selected Publications:

Author or co-author of over 150 publications. The following are representative.

Edited Books:

Algorithmically Specialized Parallel Computers, L. Snyder, L. H. Jamieson, D. B. Gannon, and H. J. Siegel, editors, Academic Press, New York, NY, 1985,

The Characteristics of Parallel Algorithms, L. H. Jamieson, D. Gannon, and R. J. Douglass, editors, M.I.T. Press, Cambridge, MA, 1987.

Publications in Speech Processing, Parallel Processing, and Computing:

L. H. Jamieson, ‘‘Characterizing Parallel Algorithms,’’ in *The Characteristics of Parallel Algorithms*, L. H. Jamieson, D. Gannon, and R. J. Douglass, editors, M.I.T. Press, Cambridge, MA, 1987, pp. 65-100.

T. A. Rice and L. H. Jamieson, ‘‘A Parallel Algorithm for Finding the Roots of a Polynomial,’’ *IEEE Trans. Computers*, Vol. C-38, March 1989, pp. 443-449.

M. A. Yoder and L. H. Jamieson, ‘‘Simulation of a Word Recognition System on Two Parallel Architectures,’’ *IEEE Trans. Computers*, Vol. C-38, Sept. 1989, pp. 1269-1284.

E. C. Bronson, T. L. Casavant, and L. H. Jamieson, ‘‘Experimental Application-Driven Architecture Analysis of an SIMD/MIMD Parallel Processing System,’’ *IEEE Trans. Parallel and Distributed Systems*, Vol. 1, April 1990, pp. 195-205.

J. Li and L. H. Jamieson, ‘‘A System for Algorithm-Architecture Mapping Based on Dependence Graph Matching and Hypergraphs,’’ *Fifth Int’l Parallel Processing Symposium*, April 1991, pp. 513-518.

F. J. Weil, L. H. Jamieson, and E. J. Delp, ‘‘DISC: A Method for Dynamic Intelligent Scheduling and Control of Reconfigurable Parallel Architectures,’’ *Journal of Parallel and Distributed Computing*, Vol. 13, Nov. 1991, pp. 273-285.

L. H. Jamieson, E. J. Delp, C.-C. Wang, J. Li, and F. J. Weil, ‘‘A Software Environment for Parallel Computer Vision,’’ *IEEE Computer*, Vol. 25, Feb. 1992, pp. 73-77.

M. P. Harper, L. H. Jamieson, C. D. Mitchell, G. Ying, S. Potisuk, P. N. Srinivasan, R. Chen, C. B. Zoltowski, L. L. McPheters, B. Pellom, and R. A. Helzerman, ‘‘Integrating Language Models with Speech Recognition,’’ *AAAI-94 Workshop on the Integration of Natural Language and Speech Processing*, Aug. 1994, pp. 139-146.

C. D. Mitchell, M. P. Harper, L. H. Jamieson, and R. A. Helzerman, ‘‘A Parallel Implementation of a Hidden Markov Model with Duration Modeling for Speech Recognition,’’ *Digital Signal Processing*, Vol. 5, Jan. 1995, pp. 43-57.

C. D. Mitchell, M. P. Harper, and L. H. Jamieson, ‘‘On the Complexity of Explicit Duration HMMs,’’ *IEEE Trans. Speech and Audio Processing*, Vol. 3, May 1995, pp. 213-217.

J. N. Patel, A. A. Khokhar, and L. H. Jamieson, ‘‘Scalable Parallel Implementations of List Ranking on Fine-grained Machines,’’ *IEEE Trans. Parallel and Distributed Systems*, Vol. 8, Oct. 1997, pp. 1006-1018.

P. Srinivasan and L. H. Jamieson, ‘‘High Quality Audio Compression Using an Adaptive Wavelet Packet Decomposition and Psychoacoustic Modelling,’’ *IEEE Trans. Signal Processing*, Vol. 46, April 1998.

M. T. Johnson, L. H. Jamieson, and M. P. Harper, ‘‘Interfacing Acoustic Models with Natural Language Processing Systems,’’ *5th Int’l Conf. Spoken Language Processing*, Dec. 1998.

A. M. Surprenant, S. L. Hura, M. P. Harper, L. H. Jamieson, G. Long, S. Thede, A. Rout, T.-H. Hsueh, S. Hockema, M. Johnson, P. Srinivasan, C. White, and J. Laflen, ‘‘Familiarity and Pronounceability of Nouns and Names,’’ *Behavior Research Methods, Instruments, & Computers*, Vol. 31, Nov. 1999, pp. 638-649.

J. N. Patel, A. A. Khokhar, and L. H. Jamieson, ‘‘Scalability of 2-D Wavelet Transform Algorithms: Analytical and Experimental Results on MPPs,’’ *IEEE Transactions on Signal Processing*, Vol. 48, Dec. 2000, pp. 3407-3419.

R. Kennell and L. H. Jamieson, ‘‘Establishing the Genuinity of Remote Computer Systems,’’ *USENIX ’03*, June 2003. Winner of the Best Student Paper Award.

Y. Liu, M. P. Harper, M. Johnson, and L. H. Jamieson, ‘‘The Effect of Pruning and Compression on Graphical Representations of the Output of a Speech Recognizer,’’ *Computer Speech and Language*, Vol. 17, Oct. 2003, pp. 329-256.

Publications in Education:

E. J. Coyle, H. G. Dietz, and L. H. Jamieson, ‘‘Long-Term Community Service Projects in the Purdue Engineering Curriculum,’’ *1996 ASEE Annual Conference*, June 1996.

E. J. Coyle, L. H. Jamieson, and L. S. Sommers, ‘‘EPICS: A Model for Integrating Service-Learning into the Engineering Curriculum,’’ *Michigan Journal of Community Service Learning*, Vol. 4, Fall 1997, pp. 81-89.

Leah H. Jamieson, Edward J. Coyle, Mary P. Harper, Edward J. Delp, and Patricia Davies, ‘‘Integrating Engineering Design, Signal Processing, and Community Service in the EPICS Program,’’ *1998 IEEE Int’l Conf. Acoustics, Speech, and Signal Processing*, May 1998, pp. 1897-1900.

W. C. Oakes, E. J. Coyle, and L. H. Jamieson, ‘‘EPICS: A Model of Service-Learning in an Engineering Curriculum,’’ *2000 ASEE Annual Conference*, June 2000.

E. J. Coyle, R. Foretek, J. L. Gray, L. H. Jamieson, W. C. Oakes, J. Watia, and R. Wukasch, ‘‘EPICS: Experiencing Engineering Design Through Community Service Projects,’’ *2000 ASEE Annual Conference*, June 2000.

E. J. Coyle and L. H. Jamieson, ‘‘EPICS: Service Learning by Design,’’ in *Projects That Matter: Concepts and Models for Service-Learning in Engineering*, E. Tsang, editor, American Association for Higher Education (AAHE), 2000, pp. 59-73.

W. C. Oakes, L. H. Jamieson, and E. J. Coyle, ‘‘Documenting Service Learning to Meet ABET Engineering Criteria 2000,’’ *Proceedings of the 2001 Frontiers in Education Conference*, October 2001.

L. H. Jamieson, W. C. Oakes, and E. J. Coyle, ‘‘EPICS: Serving the Community Through Engineering Design Projects,’’ *Learing to Serve: Promoting Civil Society Through Service Learning*, L. A. K. Simon, M. Kenny, K. Brabeck, and R. M. Lerner, editors, Kluwer Academic Publishers, 2001.

L.P.B. Katehi, K. Banks, H. A. Diefes-Dux, D. K. Follman, J. Gaunt, K. Haghighi, P. K. Imbrie, L. H. Jamieson, R. E. Montgomery, W. C. Oakes, and P. Wankat, ‘‘A New Framework for Academic Reform in Engineering Education,’’ *2004 American Society for Engineering Education (ASEE) Annual Conference*, June 2004.

E. J. Coyle, L. H. Jamieson, and W. C. Oakes, ‘‘EPICS: Engineering Projects in Community Service,’’ *International Journal of Engineering Education*, Vol. 21, No. 1, 2005.

J. Heinzen, L. Jamieson, J. Krueger, S. Nation, W. Oakes, and C. Zoltowski, ‘‘University and Community Partnerships for Reaching Pre-College Students: The EPICS Model,’’ *Proceedings of the 2005 American Society for Engineering Education (ASEE) Annual Conference*, Portland, Oregon, June 2005.

C. B. Zoltowski, W. C. Oakes, and L. H. Jamieson, ‘‘Equipping Multi-Disciplinary Student Teams to Manage Multi-Semester Design Projects,’’ *Proceedings of the 2005 American Society for Engineering Education (ASEE) Annual Conference*, Portland, Oregon, June 2005.

F. R. DeRego Jr., C. B. Zoltowski, L. H. Jamieson, and W. C. Oakes, ‘‘Teaching Ethics and the Social Impact of Engineering Within a Capstone Course,’’ *Proceedings of the 2005 Frontiers in Education Conference*, Inidanapolis, Indiana, Nov. 2005.

E. J. Coyle, L. H. Jamieson, and W. C. Oakes, ‘‘2005 Bernard M. Gordon Prize Lecture: Integrating Engineering Education and Community Service: Themes for the Future of Engineering Education,’’ *ASEE Journal of Engineering Education*, Vol. 95, No. 1, Jan. 2006, pp. 7-11.

R. Adams, N. Fortenberry, K. Haghighi, P.K. Imbrie, L. Jamieson, J. Lohmann, T. Reed-Rhoads, and K. Smith, ‘‘The National Engineering Education Research Colloquies,’’ *Journal of Engineering Education*, Oct. 2006, pp. 257-264

Publications Related to Women in Engineering and Computer Science:

L. H. Jamieson and J. E. Cuny, ‘‘CRA-W: The Computing Research Association Committee on the Status of Women in Computing Research,’’ *Grace Hopper Celebration of Women in Computing*, Sept. 1997, pp. 129-132.

E. M. Wadsworth, L. H. Jamieson, R. Sullivan Lee, and D. R. Mennen, *Classroom Climate Workshops on Gender Equity for Faculty Members*, video and guide, Anker Publishing, Bolton, MA, 1998.

‘‘Cherchez la Femme,’’ *IEEE Signal Processing Magazine*, Vol. 16, July 1999, pp. 6-8.

‘‘Do it for your Daughters,’’ *IEEE Signal Processing Magazine*, Vol. 16, September 1999, pp. 4-10.

‘‘Engineering, Community, and Women,’’ *Computing Research News*, April 2001.

Representative Professional Activities

IEEE President and CEO, 2007.

Founding chair, IEEE Committee on Public Visibility, 2007-08.

IEEE Vice-President, Technical Activities, 2003.

IEEE Vice-President, Publication Services and Products, 2005.

Member, IEEE Board of Directors and Executive Committee, 2003, 2005-08.

President, IEEE Signal Processing Society, 1998-99.

Associate Editor, *IEEE Transactions on Acoustics, Speech, and Signal Processing*, 1986-87.

Associate Editor, *IEEE Transactions on Parallel and Distributed Systems*, 1991-94.

Member, Editorial Board, *Proceedings of the IEEE*, 1999-2001.

Chair, IEEE Technical Activities Board New Technology Directions Committee, 2004-06.

Member (1998-2000, 2001-2007) and Secretary (1999-2000), Computing Research Association (CRA) Board of Directors.

Co-Chair, CRA Committee on the Status of Women in Computing Research, 1996-99.

Co-Chair, CRA Snowbird Conference, 2002.

Member, National Academy of Engineering (NAE) Committee on Engineering Education, 2007-Present.

Member, Steering Committee for the NAE Project on Messaging to Improve the Public Understanding of Engineering, 2006-2008.

Co-Chair, American Society for Engineering Education (ASEE) NSF-funded project, ‘‘Engineering Education for the Global Economy,’’ 2007-Present.

Member of numerous conference program committees.

Advisory Committees

National Research Council Committee, Advisory to the Army Research Office, 1984-88

NSF Division of Microelectronic Information Processing Systems, 1987-1990

NSF Directorate for Computer and Information Science and Engineering (CISE), 1997-2000

Northwestern University Electrical and Computer Engineering Department, 1999-2005

The Infinity Project: supported by grants from Texas Instruments and the National Science Foundation, developed a signal processing curriculum for high school students, 2000-2004

Indiana Campus Compact, 2002-2006

Princeton University Electrical Engineering Department, 2001-2006

Princeton University Keller Center for Innovation in Engineering Education, 2006-Present

National Academy of Engineering Center for the Advancement of Scholarship in Engineering Education (CASEE), 2006-Present

Journal of Engineering Education, 2008-Present

Clemson College of Engineering and Science, Clemson College of Engineering and Science, 2008-Present

Rice University Center for Engineering Leadership, 2008-Present

Anita Borg Institute for Women and Technology Board of Trustees, 2008-Present

Selected Activities Related to Women in Engineering and Computing:

Activities at Purdue:

Facilitator/moderator for pilot Classroom Climate Workshops on Gender Equity for faculty in the schools of engineering and science (1997): Workshops addressing gender equity issues, developed by the Women in Engineering and Women in Science programs and the Division of Theatre at Purdue, with support from the Sloan Foundation. Workshops were conducted at Purdue, the University of Illinois at Urbana-Champaign, and at the Rose-Hulman Institute of Technology. A follow-on project (1998) produced a video and facilitation guide for use by institutions wishing to conduct gender equity workshops for faculty.

Member of the 14-member Presidential Task Force on Women’s Issues (1995-1997).

Founding Chair of the Purdue Women Faculty in Engineering Committee, 1999.

Organizer of numerous workshops for junior high school and high school girls as a part of the Expanding Your Horizons in Math and Science programs, Society of Women Engineers programs, and Purdue's Women in Engineering Career Day.

Vice-Convener (2000) and Co-Convener (2001) of the Purdue Council on the Status of Women.

National Activities:

CRA:

The Computing Research Association (CRA) is an association of more than 150 North American academic departments of computer science and computer engineering, industrial laboratories engaging in basic computing research, and affiliated professional societies. CRA's Committee on the Status of Women in Computing Research (CRA-W) is a working committee whose mission is to take positive action that increases the number and success of women in computing research and higher education. Funded primarily by NSF, CRA-W has conducted projects aimed at research mentoring, information sharing, community building, and effecting organizational change.

Past Co-Chair of CRA's Committee on the Status of Women in Computing Research (CRA-W) (1996-1999)

Editor of the column ''Expanding the Pipeline,'' published in the *Computing Research News*, 1993-1996.

''Women in Computer Science'' Careers Booklet: One of 18 women profiled in the Careers Booklet ''Women in Computer Science'' published in 1996 by CRA-W, with support from NSF. The purpose of the booklet is to encourage young women in high school and college to consider a career in computing. To date, 15,000 copies of the booklet have been distributed. Funding from ACM supported the distribution of the booklet to all high schools in the United States.

Academic Careers for Women in Computing Workshop/ Research Careers for Women in Computing Workshop panelist, 1994-2003: Participated in several CRA mentoring workshops as a panelist on the topics of time management, building a research program, and advancing a research career.

Organized the first CRA leadership summit of the chairs of the women's groups affiliated with professional organizations in computing (1999).

IEEE Signal Processing Society:

Founder and organizer of the annual "Women in Signal Processing" lunch at the IEEE International Conference on Acoustics, Speech, Signal Processing (1993 - present).

Signal Processing Magazine columns on women in engineering: ''Cherchez la Femme'' (Vol. 16, July 1999, pp. 6-8) and ''Do it for your Daughters'' (Vol. 16, September 1999, pp. 4-10).

Anita Borg Institute for Women and Technology:

Jamieson is a member of the Board of Trustees of the Anita Borg Institute for Women and Technology

Women and EPICS:

The EPICS goals are consistent with many of the recommendations that have been made with respect to increasing the number of women and minorities in engineering: framing technical fields in their social context, stressing general educational goals, including communication, in engineering education; employing cooperative, interdisciplinary approaches. In the first eight years of operation, 25% of the EPICS students were women. In Electrical and Computer Engineering and Mechanical Engineering, participation of women in EPICS was 20%, compared to approximately 11% in the ECE and ME undergraduate programs.

In 1999, Prof. Jamieson joined with four colleagues from Purdue to forge a partnership with the Anita Borg

Institute for Women and Technology. This led to a series of workshops at Purdue that have engaged over 200 women and girls from Purdue and the local community in discussions about technology. The EPICS team created products focused on technology for pre-teen and young-teen girls, and designed a ‘‘female-friendly’’ collaborative computer lab for Purdue’s Computer Science Department.