

**SANDRA A. YOST, Ph.D., P.E.**

**Department of Electrical and Computer Engineering  
University of Detroit Mercy  
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**EDUCATION**

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**Doctor of Philosophy in Electrical Engineering May 1996**  
University of Notre Dame, Notre Dame, Indiana  
Dissertation title: "Robust Stability of Shift-Variant Discrete-Time Systems."

**Master of Engineering in Electrical Engineering May 1982**  
University of Detroit, Detroit, Michigan  
Specializations: Communications and Controls. (GPA: 3.70/4.00)

**Bachelor of Electrical Engineering Summa Cum Laude, May 1981**  
University of Detroit  
A five-year program which required at least three semesters of work experience in industry for completion of the degree. (Cooperative Education Program). (GPA: 3.86/4.00)

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**ACADEMIC EXPERIENCE**

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**Professor (August 2009 – present)**

**Associate Professor (August 2000 – August 2009)**

**Assistant Professor (August 1996 – August 2000)**

Department of Electrical and Computer Engineering, University of Detroit Mercy, Detroit, Michigan.

Teach graduate and undergraduate courses, including Digital Control Systems, Sensors and Actuators, Mechatronic Systems Design, Linear Systems Theory, Digital Signal Processing, and Fundamentals of ECE II (plus companion project-based lab course), Intro to Engineering Design and Graphics, Signals and Systems, Control Systems I, Logic Circuits I, Professional Work of Work. Advise undergraduate/graduate students and student organizations. Serve on doctoral committees as reader or advisor.

Conduct scholarly inquiry on engineering education pedagogy, develop and reform engineering curricula, lead and coordinate ABET accreditation activities, obtain external funding for curriculum development and other department/college/institution activities.

Demonstrate leadership in a variety of committees and administrative roles, taking on increasing levels of responsibility and risk in leading complex and critical institutional initiatives.

**Adjunct Instructor (January 1996 - May 1996)**

Department of Electrical Engineering, University of Notre Dame, Notre Dame, Indiana.

Taught Electronics I, a required course for undergraduate electrical engineering majors. Supervised

graduate teaching assistants in laboratory and in grading homework.

**Graduate Assistant (January 1995 - May 1995)**

Department of Electrical Engineering, University of Notre Dame, Notre Dame, Indiana.

Completed duties as teaching assistant for Electrical Vehicle Engineering course, including grading, lecturing, and coordination of the Irish Racing Team.

**Assistant Professor (July 1989 - June 1992), Instructor (August 1983 - June 1989)**

School of Engineering Technology and Commonwealth Engineering, Penn State University - Beaver Campus, Monaca, Pennsylvania.

Taught, advised and developed courses in both the Associate Degree EET and Baccalaureate Degree EE programs. Wrote grant to support curriculum development and laboratory improvement efforts (An additional four years (1992-1996) of this assignment were spent on a Graduate Study Leave of Absence.)

**Upper Elementary Teacher (August 1988 - November 1988)**

Mount Gallitzin Academy, Baden, Pennsylvania.

Taught 5th through 8th level science, 7th level math and 7th level religion.

**Teaching Fellow (September 1981 - May 1982)**

Mathematics Department, University of Detroit.

Taught the calculus and pre-calculus courses that were requirements of the University's core curriculum.

**Laboratory Instructor (January 1980 - May 1981)**

Electrical Engineering and Physics Departments, University of Detroit.

Taught various physics lab courses and problem sections, and a digital electronics lab.

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## INDUSTRIAL EXPERIENCE

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**Manufacturing Engineer (May 1981 - June 1983)**

Delco Electronics Division of General Motors, Kokomo, Indiana.

Worked with other engineers, designers, and skilled tradespersons to design and implement processes and equipment for production testing of radio assemblies and circuit boards. Worked in cross-functional teams charged with advance planning and coordination related to new product introductions. Provided training and technical support to engineering staff of offshore plants in Singapore and Mexico.

**Engineering Co-op Student (May 1978 - May 1981)**

Delco Electronics.

Completed co-op assignments during four work semesters including: Equipment Development Engineering, Production Engineering, Advance Product Development Engineering, Quality Control Engineering, Hourly Supervision, and Purchasing.

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## WORKSHOPS, PROFESSIONAL DEVELOPMENT

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Selected to participate in "Academic Leadership for Women in Engineering Workshop," hosted by Society of Women Engineers, Chicago, IL, October 2011

"2011 Denver HERS Institute," Denver, CO, July 2011

ABET Program Evaluator Training, Baltimore, MD, June 2011

ABET "IDEAL: Institute for the Development of Excellence in Assessment Leadership," Phoenix, AZ, January 2010

“Kern Entrepreneurship Education Network (KEEN) Conference,” Phoenix, AZ, January 2008

“Wimba classroom,” Instructional Design Studio, University of Detroit Mercy, January 2008

“Competency Assessment in Distributed Education,” Association of Jesuit Colleges and Universities (online), Summer 2007

“Breaking Barriers in Communication: Technology-Enabled Active Learning for STEM Disciplines,” San Diego, CA, June, 2007

“Rigorous Research in Engineering Education,” Colorado School of Mines, Golden, CO, August 2005.

“Teaching with Technology Workshop,” University of Detroit Mercy, May 2005

“Best Assessment Practices VI Conference”, Rose-Hulman Institute of Technology, Terre Haute, IN, March 2004

“NSF/ONR Sponsored Faculty Workshop on Teaching of First Courses on Power Electronics and Electric Drives and Advanced Course on Power System Applications of Power Electronics”, organized by University of Minnesota and Arizona State University, Arizona State University, Tempe, AZ, Jan. 2003

“Team-Oriented, Project-Based Collaborative Learning Workshop,” University of Notre Dame, Notre Dame, IN, July 1998

“The Economics of Engineering Design,” University of Pittsburgh, Pittsburgh, PA, Nov. 1997

“Process and Products: Multimedia and Internet Courseware,” Queensborough Community College, Bayside, NY, June 1997

Various workshops offered to faculty in the NSF-sponsored *Greenfield Coalition for New Manufacturing Education*

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## PROFESSIONAL AND OTHER ACTIVITIES

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Licensed Professional Engineer, Commonwealth of Pennsylvania (inactive)  
Peer Reviewer for:

*IEEE Conference on Decision and Control*

*American Control Conference*

*IEEE International Symposium on Circuits and Systems*

*Midwest Symposium on Circuits and Systems*

*Frontiers in Education Conference*

*ASEE Annual Conference*

*IEEE Transactions on Circuits and Systems*

*IEEE Transactions on Evolutionary Computing*

*Multidimensional Systems and Signal Processing*

*Automatica*

*Journal of Engineering Education*

*Journal of Engineering Technology*

*International Journal of Control-Theory and Advanced Technology*

Engineering Accreditation Commission Program Evaluator, ABET (2011-present)

National Science Foundation Review Panels (1997 REU Sites, 2001 CCLI)

SWE National Faculty Advisor and Counselor Liaison (1994-97)

SWE 2002 National Conference Committee - Technical Paper Chair (May 2001-October 2002)

Electronic Communication Coordinator, SWE Region H (1994-97)  
Electronic Communication, SWE Detroit Section (1996-98)  
VP for Student Services, SWE Detroit Section (1998-1999)  
Counselor, SWE Student Section, University of Detroit Mercy (1996-2004)  
Vice Chair, Chapter I of IEEE Southeastern Michigan Section (1998-2000)  
Zone II Chair-Elect, ASEE (2003-2004)  
Zone II Chair, ASEE (2004-2006)  
Director: Positions, ASEE Women in Engineering Division (2005-2007)  
Program Chair, ASEE Educational Research and Methods Division (2006-2009)  
Vice President, Member Affairs, ASEE (2008-2010)  
Vice President, External Relations, ASEE (2011-2013)  
ASEE Projects Board (2009-present)  
Chair, ASEE National Outstanding Teaching Award Committee (2010-present)  
Best Paper Chair, ASEE North Central Section (2005-2007)  
Past Chair, ASEE North Central Section (2001-2003)  
Chair, ASEE North Central Section (1999-2001)  
Vice Chair, ASEE North Central Section (1998-1999)  
Program Co-Chair, ASEE North Central Section 1998 Spring Conference  
Co-Director, UDM Women's Studies Program (2000-2002, 2003-2005)  
Chair, UDM Board for Women's Studies (1997-1999)  
Chapter Advisor, Tau Beta Pi, Michigan Delta (2004-present)  
Secretary, UDM McNichols Faculty Assembly (2008-present)  
UDM University Faculty Development Committee/Team (2000-2003, 2007-2009)  
UDM Assessment Team (2010-present)  
UDM Women's Studies Events and Communication Subcommittee (2006-2008)  
UDM Blackboard Support Committee (2007-present)  
UDM Women's Studies Steering Committee (1999-2006)  
UDM Title IX Compliance Self-Study Committee (2001-2002)  
UDM ABET Coordinator (2009-present)  
UDM Department of Electrical and Computer Engineering Assessment Coordinator (2003-present)  
UDM College of Engineering and Science IT Committee (2009-10)  
UDM College of Engineering and Science Curriculum and Standards Committee (2010-present)  
UDM College of Engineering and Science Tenure and Promotion Committee (2011-present)  
Faculty Moderator, Kappa Beta Gamma Sorority (1996-2005)  
Faculty Moderator, Alpha Phi Omega Service Fraternity (1997-2001)  
EE Department Representative to ND Graduate Student Council (1994-95)  
Graduate Student Representative to ND Faculty Senate (1993-94)  
Counselor, SWE Student Section, University of Notre Dame (1992-1996)  
Section Campus Representative, North Central Section of ASEE (1991-92)  
Conference Planner Subcommittee Chair, SWE National Continuing Development Committee (1990-92)  
Student Section Coordinator, Pittsburgh Section of SWE (1990-92)  
Counselor, SWE Student Section, Penn State - Beaver (1990-92)  
Faculty Advisor, Tau Alpha Pi Engineering Technology Honorary Society, Penn State - Beaver Campus Chapter (1990-92)  
University Faculty Senate, Penn State University (1990-92)  
Member, Sisters of St. Joseph (since 1985)  
Instrumental Musician, Gesu Parish

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## MEMBERSHIP IN PROFESSIONAL AND HONOR SOCIETIES

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Institute of Electrical and Electronic Engineers (Senior Member)  
American Society for Engineering Education  
Society of Women Engineers (Senior Life Member)  
Tau Beta Pi, Eta Kappa Nu, Alpha Sigma Nu, Pi Mu Epsilon, Tau Alpha Pi

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## HONORS AND AWARDS

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- 2005 ASEE Outstanding Zone II Campus Representative
- 2005 Outstanding Campus Representative, ASEE North Central Section
- 2004 Engineering Teacher of the Year, University of Detroit Mercy
- 1997 Sloan New Faculty Fellow (Frontiers in Education Conference)
- AAUW Engineering Dissertation Fellowship (1995-96)
- Clare Boothe Luce Fellowship, University of Notre Dame (1992-94)
- SAE Doctoral Scholar (1992-95)
- 1991 Dow Outstanding Young Faculty Award, American Society for Engineering Education, North Central Section
- Insignis Scholar, University of Detroit (1976-81)

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## GRANTS

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“Robotics and Mechatronics Systems Engineering at UDM,” National Science Foundation, \$592,156 (2011) (resubmitted, pending)

“Advancing the Careers for Women in STEM at Predominantly Undergraduate Institutions through Professional Networks,” National Science Foundation ADVANCE-PAID Program, \$598,611 (2011)

“Automotive Sensors and Actuators in Mechatronic System Design Instruction,” Denso North America Foundation, \$50,000 (2010) (not funded)

“Robotics and Mechatronics Systems Engineering at UDM,” National Science Foundation, \$573,002 (2010) (not funded)

“A Service Learning Project to Design Assistive Technologies to Aid the Visually-Impaired in India,” UDM Unionized Faculty Research Awards, \$5,239 (2009)

“God’s Grounds, a weekly rap session for conversation about things that matter deeply,” UDM Mission Micro-Grant Fund, \$100 (2008)

“A Balanced, Integrated, and Innovative Electrical and Computer Engineering Curriculum,” National Science Foundation, \$1,000,000 (2005) (not funded)

“A Cognitive Apprenticeship Approach to Instruction in Engineering: Effects on the Ability and Motivation of Students to Engage in Self-Directed Learning,” National Science Foundation, \$320,023 (2005) (not funded)

“The Influence of Location on Mission: The Role of a Catholic University in Promoting Difficult Dialogues,” Ford Foundation, \$100,000 (2005) (not funded)

“Clare Boothe Luce Scholars at the University of Detroit Mercy,” Clare Boothe Luce Foundation, \$250,000 (2004)

“New Course Development in Advanced Mechatronics,” National Science Foundation, \$207,827 (2003)

“Grants for the Advancement of Feminist Scholarship,” UDM Women’s Studies Program, \$500 (2002)

“Technology Training For Adult Women Learners,” Mercy Ministry Fund, \$3,290 (2001)

“Implementing and Testing a Computer Network,” Rapid Global Business Services; \$2,000 (2000)

“Mechatronics: A Comprehensive, Interdisciplinary Curriculum Development Initiative,” National Science Foundation; \$225,000 (1998)

“Mechatronics Curriculum,” Chrysler Fund, \$2,500 (1998)

“Freshman Engineering,” Chrysler Fund, \$1,000 (1998)

“Mechatronics: An Interdisciplinary Course for Tomorrow’s Manufacturing Engineers,” submitted to SME Education Foundation; \$156,236 (1997) (not funded)

“Innovations in Freshman Engineering Education: Virtual Instrumentation as a Paradigm For Experiment Design and Data Analysis,” submitted to National Science Foundation; \$70,598 (1997) (not funded)

“Research and Laboratory Instruction in Control Systems,” College of Engineering and Science Faculty Grant Incentive Program, University of Detroit Mercy; \$6,041 (1997)

“Teaching Instrumentation and Control for the 21st Century,” SME Education Foundation; \$5,944 (1997)

“Control Systems Knowledge Area: a Curriculum Development Proposal” NSF Greenfield Coalition; \$125,000 (1997)

“Enhanced Fiber Optics Training,” Pennsylvania Department of Education; \$15,000 (1990)

“Advanced Technological Updating of the Electrical Engineering Technology Program: Telecommunications Laboratory,” Pennsylvania Department of Education; \$67,000 (1989)

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## **LECTURES AND CONFERENCE PRESENTATIONS**

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“We’re All in the Same Boat – Promoting an Institutional Culture of Assessment,” ASEE 2011 Conference, Vancouver, BC, June 2011.

“Development of an Integrated Spiral Curriculum in Electrical and Computer Engineering,” ASEE 2008 Conference, Pittsburgh, PA, June 2008.

“Document Management in Team-Oriented, Project-Based Courses: Evaluating a LaTeX/Subversion-Based Approach,” ASEE 2007 Conference, Honolulu, HI, June 2007.

“Using a Tablet PC to Enhance Instruction and Productivity,” ASEE - North Central Section, 2007 Spring Conference, April 2007.

“Work in Progress: A Cognitive Apprenticeship Approach to Instruction in Engineering: Lessons Learned from the Design of Field Research in the Classroom,” presented at the 2006 Frontiers in Education Conference (FIE '06), San Diego, CA, October 2006.

“So You Survived the ABET Visit...How to Continue a Sustainable Assessment Effort,” ASEE 2006 Conference, Chicago, IL, June 2006.

“How Tablet PCs Can Enhance Instruction and Productivity,” Univ. of Detroit Mercy Instructional Design Studio Workshop, November 2005. (invited presentation)

“The Mechatronics Road Show: Building on Success in Mechatronics Curriculum Development,” ASEE 2004 Conference, Salt Lake City, UT, June 2004.

“Taking Mechatronics on the Road,” 2002 SWE National Conference, Detroit, MI, October 2002.

“Advanced Degrees,” 2002 SWE National Conference, Detroit, MI, October 2002. (invited panelist)

“Preparing a Tenure and/or Promotion Dossier,” UDM Tenure and Promotion Workshop, April 2002.

“Introducing Mechatronics in a First-Year Intro to Engineering Design Course,” presented at the ASEE 2000 Conference, St. Louis, MO, June 2000.

“A Team Approach to Interdisciplinary Instruction in a First-Year Engineering Design Course,” presented at the ASEE North Central Section Spring Conference, Lansing, MI, March 2000.

“Mechatronics: A Comprehensive, Interdisciplinary Curriculum Development Initiative,” presented at the 1999 Frontiers in Education Conference (FIE '99), San Juan, Puerto Rico, Nov. 1999

“Interactive Web Resources in an Engineering Course,” presented at a University Faculty Development Seminar, University of Detroit Mercy, Nov. 1999

“A Low-Cost Approach to the Retention of Undergraduate Women Engineering and Science Students”, presented at the ASEE 1998 Conference, Seattle, WA, June 1998

“Adventures in Cooperative Learning: An Ongoing Experiment”, presented at the ASEE 1998 Conference, Seattle, WA, June 1998

“Visual Basic”, presented at the College of Engineering and Science Faculty Development Workshop, University of Detroit Mercy, May 1998 (invited workshop)

“Development of Computer Based Instruction in a Control Systems Curriculum”, presented at the 1997 Frontiers in Education Conference (FIE '97), Pittsburgh, PA, Nov. 1997

“Lessons Learned: Ongoing Experiments in Cooperative Learning”, presented at the College of Engineering and Science Faculty Development Workshop, University of Detroit Mercy, August 1997 (invited presentation)

“Factors Affecting the Successful Integration of a Cooperative Learning Component in Classroom Instruction”, presented at the 1997 ASEE North Central Section Spring Conference, Dayton, April 1997

“Stability of Shift-Variant Difference Equations with Application to Adaptive Digital Filters”, presented at the 1996

IEEE International Symposium on Circuits and Systems, Atlanta, May 1996

“SWE Sections on the Information Superhighway: Benefits of Establishing an Internet Presence,” presented at the 1996 Society of Women Engineers National Convention, Portland, OR, June 1996

“Stability in Discrete Time Systems,” Grand Valley State University, Feb. 1996 (invited seminar)

“Stability Robustness and Shift-Variance in Discrete Time Systems,” University of Detroit Mercy, Nov. 1995 (invited seminar)

“Stability Robustness and Shift-Variance in Digital Filters,” The Catholic University of America, Nov. 1995 (invited seminar)

“Working Together Sending a Message to Young Women: Prepare for a Real Life - Study Math and Science,” invited panelist at the 1994 American Association of Physics Teachers Annual Meeting, Notre Dame, IN, Aug. 1994

“On the Double Bilinear Transformation and Nonessential Singularities of the Second Kind at Infinity,” presented at the 1994 IEEE International Symposium on Circuits and Systems, London, June 1994

“Gender and Language: Implications for Women in Engineering,” presented at the 1994 Society of Women Engineers National Convention, Pittsburgh, PA, June 1994

“Implications of Language Structure and Usage for the Recruitment and Retention of Women Engineers,” presented at the University of Notre Dame Gender Studies Forum, Apr. 1994

“Robust Stability of Multidimensional Difference Equations with Shift-Variant Coefficients,” presented at EE Graduate Seminar, University of Pittsburgh, Feb. 1994 (invited lecture)

“Hypermedia in Engineering Technology,” presented at the ASEE 1992 Conference, Toledo, OH, June, 1992

“Hypermedia - A Tool for Technical Training,” presented at the 1992 Society of Women Engineers National Convention, Orlando, FL, June 1992

“Hypertext Laboratory Assistant,” presented at the 1991 Frontiers in Education Conference, West Lafayette, IN, Sept. 1991

“Integration of Text and Graphics Using AutoCAD and WordPerfect,” presented at the ASEE 1991 Conference, New Orleans, LA, June 1991

“Computer-Aided Instruction in Electronic Circuit Debug: An Expert System Approach,” presented at the ASEE 1990 Conference, Toronto, ON, June 1990

“Closing the Gender Gap: Implications for Educators and Managers,” presented at the 1989 Annual Meeting of ASEE - St. Lawrence Section, Binghamton, NY, Oct. 1989

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## INVITED PAPERS

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S. A. Yost, “Reflections on Cooperative Learning: Look Before You Leap”, *1997 Frontiers in Education Conference Proceedings (FIE '97)*, Pittsburgh, PA, Nov. 1997



S. A. Yost and P. H. Bauer, "Robust Asymptotic Stability of 2-D Shift-Variant Discrete State-Space Systems", *Proceedings Midwest Symposium on Circuits and Systems (MWSCAS '95)*, Rio de Janeiro, Brazil, Aug. 1995

S. A. Yost and P. H. Bauer, "Robust Stability of Multidimensional Difference Equations with Shift-Variant Coefficients," *Multidimensional Systems and Signal Processing*, Vol. 5, pp. 455-462, Oct. 1994

## REFEREED PUBLICATIONS

S. Yost, E. Roberts-Kirchhoff, P. Zarkowski, "We're All on the Same Boat – Promoting an Institutional Culture of Assessment," *ASEE 2011 Conference Proceedings*, June 2011.

Das, S.; Yost, S.A.; Krishnan, M.; , "A 10-Year Mechatronics Curriculum Development Initiative: Relevance, Content, and Results—Part I," *Education, IEEE Transactions on* , vol.53, no.2, pp.194-201, May 2010  
doi: 10.1109/TE.2008.2011539

URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5169909&isnumber=5458332>

Krishnan, M.; Das, S.; Yost, S.A.; , "A 10-Year Mechatronics Curriculum Development Initiative: Relevance, Content, and Results—Part II," *Education, IEEE Transactions on* , vol.53, no.2, pp.202-208, May 2010  
doi: 10.1109/TE.2008.2011542

URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5170019&isnumber=5458332>

R. Barr, J. P. Mohsen, R. E. Flori, J. M. Fraser, A. Karimi, N. A. Macken, J. A. Stratton, J. J. Uhran, S. A. Yost, "ASEE Zone-Wide Year of Dialog on the Scholarship of Engineering Education," in *Proceedings: 7th Annual ASEE Global Colloquium on Engineering Education*, Cape Town, South Africa, October 2008.

R. G. Slowik, M. Krishnan, P. Venugopal, S. A. Yost, S. Das, "Description of a Service Learning Project to Design Assistive Technologies to Aid the Visually-Impaired in India," in *Proc. 30th Annual. Frontiers in Education Conf.*, San Antonio, TX, October 2009.

M. Krishnan, S. A. Yost, M. J. Paulik, and T. Stolz, "Shared projects with a multi-sub-disciplinary flavor - providing integration and context in a new ECE spiral curriculum," *Proc. 29th Annual. Frontiers in Education Conf.*, Saratoga Springs, NY, October 2008.

S. A. Yost, M. Krishnan, M. J. Paulik, "Development of an Integrated Spiral Curriculum in Electrical and Computer Engineering," in *ASEE 2008 Conference Proceedings*, June 2008.

S. Stamatov, S. Yost, M. Krishnan, "No Jerk Control of Rheological Semi-Active Suspension Using Predictive Soft Switching at the Borders of Damper Working Region," *Proceedings, SAE 2008 World Congress*, April 2008.

R. Barr, J. P. Mohsen, R. E. Flori, J. M. Fraser, A. Karimi, N. A. Macken, J. A. Stratton, J. J. Uhran, S. A. Yost, "ASEE Year of Dialog: Intermediate Zones' Report," in *Proceedings of the 2008 ASEE Gulf-Southwest Annual Conference*, Albuquerque, NM, March 2008.

S. Stamatov, M. Krishnan, S. Yost, "Using Quasi-linearization for Real Time Dynamic Simulation of a Quarter Vehicle Suspension," *SAE 2007 Transactions, Journal of Passenger Cars: Mechanical Systems*, Sect. 6, Vol. 116, SAE, p 802-811, 2007.

S. A. Yost, M. Krishnan, "Document Management in Team-Oriented, Project-Based Courses: Evaluating a LaTeX/Subversion-Based Approach," *ASEE 2007 Conference Proceedings*, June 2007.

S. A. Yost, "Using a Tablet PC to Enhance Instruction and Productivity," *Proceedings, ASEE - North Central*

*Section, 2007 Spring Conference, April 2007.*

S. Stamatov, M. Krishnan, S. Yost, "Using Quasi-linearization for Real Time Dynamic Simulation of a Quarter Vehicle Suspension," in *Vehicle Dynamics & Simulation (SP-2138)*, SAE, 2007.

S. A. Yost, B. R. Schirmer, M. Krishnan, "Work in Progress: A Cognitive Apprenticeship Approach to Instruction in Engineering: Lessons Learned from the Design of Field Research in the Classroom," *FIE 2006 Conference Proceedings*, p S1D-26 to S1D-27, October 2006.

S. Das, M. Krishnan, S. A. Yost, "A Mechatronics Curriculum Development Initiative: Relevance, Content, and Results from an 8-Year Effort," *Proceedings: 5<sup>th</sup> Annual ASEE Global Colloquium on Engineering Education*, October 2006.

M. Krishnan, S. Das, S. A. Yost, K. Zimmerman-Oster, "Advanced Mechatronics: Development of a Course on Sensors & Actuators for Mechatronic Systems," *ASEE 2006 Conference Proceedings*, Chicago, IL, June 2006.

S. A. Yost, "So You Survived the ABET Visit...How to Continue a Sustainable Assessment Effort," *ASEE 2006 Conference Proceedings*, Chicago, IL, June 2006.

S. Das, M. Krishnan, S. A. Yost, "Work in Progress - The Outgrowth of Mechatronics Curriculum Development Efforts: An Undergraduate Concentration in Mechatronics," *2005 Frontiers in Education Conference Proceedings (FIE 2005)*, p F3F-7 to F3F-8, Indianapolis, IN, October 2005.

S. Das, M. Krishnan, S. A. Yost, K. Zimmerman-Oster, "Advanced Mechatronics: Development of a Course on Modeling and Simulation of Mechatronic Systems," *ASEE 2005 Conference Proceedings*, Portland, OR, June 2005.

L.-P. Tseng, M. G. Mehrabi, S. A. Yost, "Modeling of Feeddrive Systems of CNC Machines for Control Applications," *Proceedings, 3<sup>rd</sup> International Conference on Reconfigurable Manufacturing*, Ann Arbor, MI, May 2005.

O. J. Abdul-Baqi, M.G. Mehrabi, S. A. Yost, "Application of Sensitivity Theory to Performance Analysis of Feeddrive System of CNC Machines", *Transactions of the North American Manufacturing Research Institute of SME, Volume 33*, p 297-304, May 2005.

S. A. Yost, D. D. Maggio, "The Mechatronics Road Show: Building on Success in Mechatronics Curriculum Development," *ASEE 2004 Conference Proceedings*, p 9667-9674, Salt Lake City, UT, June 2004.

N. Rayess, M. Krishnan, S. Yost, "A Pilot Mechanical/Electrical Interdisciplinary Capstone Design Experience", *Proceedings of the 2004 Integrating Practice in the Engineering Education Conference*, Dearborn, MI, 2004.

E. P. Venugopal, S. A. Yost, "Technology Training For Adult Women Learners," *2002 Frontiers in Education Conference Proceedings (FIE 2002)*, Vol. 2, p T1D-1 to T1D-6, Boston, MA, November 2002.

S. A. Yost, "Taking Mechatronics on the Road," *Proceedings, 2002 SWE National Conference*, Detroit, MI, October 2002.

E. Carlson, S. A. Yost, M. Krishnan, S. Das, "Outcomes-Based Assessment for Comprehensive Curriculum Development in Mechatronics," *2000 Frontiers in Education Conference Proceedings (FIE 2000)*, p T4A-1 to T4A-5, Kansas City, MO, October 2000.

S. A. Yost, "Introducing Mechatronics in a First-Year Intro to Engineering Design Course," *ASEE 2000 Conference Proceedings*, p 3823-3826, St. Louis, MO, June 2000.

- S. A. Yost, A. S. Hoback, "A Team Approach to Interdisciplinary Instruction in a First-Year Engineering Design Course," ASEE North Central Section Spring Conference Proceedings, Lansing, MI, March 2000
- M. Krishnan, S. Yost, K. Krause, J. Rondini, "Faculty Expectations for a Student Work Ethic: Mountains or Molehills?," ASEE North Central Section Spring Conference Proceedings, Lansing, MI, March 2000
- S. A. Yost, S. Das, M. Krishnan, "Mechatronics: A Comprehensive, Interdisciplinary Curriculum Development Initiative," *1999 Frontiers in Education Conference Proceedings (FIE '99)*, p. 13a1-1, San Juan, PR, Nov. 1999.
- M. Krishnan, S. Das, S. A. Yost, "Team-Oriented, Project-Based Instruction in a New Mechatronics Course," *1999 Frontiers in Education Conference Proceedings (FIE '99)*, pp. 13d4-2 to 13d4-6, San Juan, PR, Nov. 1999.
- S. Das, S. A. Yost, M. Krishnan, "Effective Use of Web-Based Communication Tools in a Team-Oriented, Project-Based, Multidisciplinary Course," *1999 Frontiers in Education Conference Proceedings (FIE '99)*, pp. 13a2-14 to 13a2-17, San Juan, PR, Nov. 1999.
- J. McDowell, S. A. Yost, "A Low-Cost Approach to the Retention of Undergraduate Women Engineering and Science Students", *ASEE 1998 Conference Proceedings*, Seattle, WA, June 1998
- S. A. Yost, N. Mohankrishnan, "Adventures in Cooperative Learning: An Ongoing Experiment", *ASEE 1998 Conference Proceedings*, Seattle, WA, June 1998
- B. Marino, S. A. Yost, "Optimizing Mentor/Mentee Relationships in Academia", *ASEE 1998 Conference Proceedings*, Seattle, WA, June 1998
- S. A. Yost, N. Al-Holou, L. M. Hideg, "Development of Computer Based Instruction in a Control Systems Curriculum", *1997 Frontiers in Education Conference Proceedings (FIE '97)*, Vol. 2, pp. 671-675, Pittsburgh, PA, Nov. 1997.
- S. A. Yost and P. H. Bauer, "Asymptotic Stability of Linear Time-Variant Polynomials with Diamond-Shaped Uncertainties", *Journal of the Franklin Institute*, Vol. 335B, No. 4, pp. 719-729, Jan. 1998
- S. A. Yost and P. H. Bauer, "Stability of Shift-Variant Difference Equations with Application to Adaptive Digital Filters", *Proceedings IEEE International Symposium on Circuits and Systems*, Atlanta, Vol. 2, pp. 17-20, May 1996
- S. A. Yost, P. H. Bauer, and K. Balemarthy, "On the Stability Preserving Property of the Double Bilinear Transformation on a Class of 2-D Transfer Functions," *Multidimensional Systems and Signal Processing*, Vol. 7, pp. 211-220, Apr. 1996
- S. A. Yost and P. H. Bauer, "Shift-Variant  $m$ -D Systems and Singularities on  $T^m$ : Implications for Robust Stability," *IEEE Transactions on Circuits and Systems, Part I*, Vol. 42, pp. 477-479, Aug. 1995
- S. A. Yost and P. H. Bauer, "Asymptotic Stability of Linear Shift-Variant Difference Equations with Diamond-Shaped Uncertainties", *Proceedings IEEE International Symposium on Circuits and Systems*, Seattle, pp. 785-788, May 1995
- S. A. Yost, P. H. Bauer, and K. Balemarthy, "On the Double Bilinear Transformation and Nonessential Singularities of the Second Kind at Infinity," *Proceedings IEEE International Symposium on Circuits and Systems*, London, Vol. 5, pp. 137-140, June 1994
- S. A. Yost, "Hypermedia in Engineering Technology," *ASEE 1992 Conference Proceedings*, Toledo, OH, pp. 71-73, June, 1992

## OTHER PUBLICATIONS (most were refereed by abstract)

S. A. Yost, "Myths about Lesbian Religious," *WomanJourney Weavings*, a publication of New Ways Ministry, Mt. Rainier, MD, March 2007 (invited article)

S. A. Yost, "Coming Out and Being Out," *WomanJourney Weavings*, a publication of New Ways Ministry, Mt. Rainier, MD, March 2002. (invited article)

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