

Phillip A. Farrington

Professor of Industrial & Systems Engineering & Engineering Management
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EDUCATION

Ph.D., Industrial Engineering & Management, Oklahoma State University, Stillwater, Oklahoma, December 1991.

M.S., Industrial Engineering, University of Missouri, Columbia, Missouri, December 1984.

B.S., Industrial Engineering, University of Missouri, Columbia, Missouri, May 1983.

ADMINISTRATIVE EXPERIENCE

Interim Dean, College of Engineering, The University of Alabama in Huntsville, June 2008 to August 2010.

Director of Distance Learning, College of Engineering, The University of Alabama in Huntsville, September 2002 to May 2008.

ACADEMIC EXPERIENCE

Professor, Department of Industrial and Systems Engineering and Engineering Management, The University of Alabama in Huntsville, August 2007 to Present.

Associate Professor, Department of Industrial and Systems Engineering and Engineering Management, The University of Alabama in Huntsville, August 1997 to July 2007.

Assistant Professor, Department of Industrial and Systems Engineering, The University of Alabama in Huntsville, August 1991 to July 1997.

INDUSTRIAL EXPERIENCE

Manufacturing Engineer, A. B. Chance Company, Centralia, Missouri, Summer 1988 and 1989.

Senior Manufacturing Engineer, A.B. Chance Company, Centralia, Missouri, February to August 1987.

Manufacturing Engineer, A.B. Chance Company, Centralia, Missouri, January 1985 to February 1987.

CONSULTING AND TRAINING EXPERIENCE

4M Research/AMRDEC-SSDD – Huntsville, AL – Design of Experiments

Alabama Insulated Wire - Elkmont, Alabama – Quality Engineering

ASRI, Inc – Huntsville, Alabama – Systems Engineering

Fontaine International, Inc. – Irondale, Alabama – Systems Engineering

McDonnell Douglas Space Systems - Huntsville, Alabama – Systems Engineering

Montana State University – Bozeman, Montana – Program Assessment

Moore Business Forms - Stillwater, Oklahoma – Quality Engineering

Raytheon Corporation - Huntsville, Alabama – Systems Engineering

U.S. Army Missile Command - Redstone Arsenal, Alabama – Systems Engineering

RESEARCH CONTRACTS AND GRANTS

1. “Alabama Technical Applications 1992,” Alabama Industrial Development Training, October 1991 to September 1992, \$100,000 (B.J. Schroer-PI and P.A. Farrington).
2. “Alabama Technical Applications 1993,” Alabama Industrial Development Training, October 1992 to September 1993, \$100,000 (B.J. Schroer-PI and P.A. Farrington).
3. “Concurrent Engineering Training Modules,” U.S. Army Missile Command, February to August, 1993, \$49,890 (G. Maddux-PI and P.A. Farrington).
4. “Insulated Metal Substrate,” Chrysler Huntsville Electronics Division, December 1992 to October 1993, \$24,000 (J.J. Swain-PI, P.A. Farrington, and S.L. Messimer).

5. "Design of Experiments," Chrysler Huntsville Electronics Division, December 1992 to December 1993, \$18,000 (J.J. Swain-PI, P.A. Farrington, and S.L. Messimer).
6. "Manufacturing Process Analysis," Chrysler Huntsville Electronics Division, March to December 1993, \$44,500 (J.J. Swain-PI, P.A. Farrington, and S.L. Messimer).
7. "TEVES Simulation Data Collection and Model Development," Chrysler Huntsville Electronics Division, December to March 1993, \$26,870 (J.J. Swain-PI, P.A. Farrington, and S.L. Messimer).
8. "Simulation-Based Process Improvement," NSF/EPSCOR, August 1993 to July 1995, \$75,000 (P.A. Farrington-PI, J.J. Swain, S.L. Messimer, and J.L. Evans).
9. "TEVES and EATX III Model Development," Chrysler Huntsville Electronics Division, October, 1993 to September 1994, \$18,036 (P.A. Farrington-PI, S.L. Messimer, and J.J. Swain).
10. "Strategy for Generic Model Development," Chrysler Huntsville Electronics Division, March to September 1994, \$25,035 (P.A. Farrington-PI, J.J. Swain, and S.L. Messimer).
11. "Bosch Simulation Data Collection and Model Development," Chrysler Huntsville Electronics Division, January to September 1994, \$19,961 (P.A. Farrington-PI, and J.J. Swain).
12. "Adventures in Engineering," National Science Foundation, April 1992 to August 1995, \$108,114 (P.A. Farrington-PI and S.L. Messimer took over the grant in January 1995 - Remaining funds: \$69,000).
13. "Software Tool Development to Support Rapid Modeling of Electronic Manufacturing and Assembly Systems - Phase I," Chrysler Huntsville Electronics Division, August 1994 to December 1994, \$14,685.
14. "Concurrent Engineering Training Modules - Update/Revision," U.S. Army Missile Command, September 1994 to January 1995, \$17,546 (G. Maddux-PI and P.A. Farrington).
15. "Software Tool Development to Support Rapid Modeling of Electronic Manufacturing and Assembly Systems - Phase II," Chrysler Huntsville Electronics Division, December 1994 to December 1995, \$36,557.
16. "Compendium of Existing Simulation Tools," Calibre Systems, Inc., March to April 1995, \$20,000 (R.M. Wyskida-PI, P.A. Farrington, and J.J. Swain).
17. "Minority Graduate Student Research Fellowship," NASA, August 1993 to February 1996, \$51,333.
18. "Chemical Demilitarization Program," Calibre Systems, Inc., July to October 1996, \$165,841 (R.M. Wyskida-PI, P.A. Farrington, J.J. Swain, and J.D. Johannes).
19. "IPD Training Enhancements," U.S. Army Missile Command, February to May 1996, \$11,710 (G. Maddux-PI and P.A. Farrington).
20. "Quality and Process Capability Data Collection," Chrysler Huntsville Electronics Division, May 1996 to August 1998, \$174,495.
21. "Verification and Validation of TOCOF Simulation," Mitretek, May 1996 to February, 1997, \$59,999 (R.M. Wyskida-PI, P.A. Farrington, J.D. Johannes, and J.J. Swain).
22. "Research and Analysis of Performance Specifications and Acquisition Reform Initiatives for the Program Executive Office," U.S. Army Project Engineering Office - Tactical Missiles, May 1997 to October 1997, \$19,955 (G. Maddux-PI and P.A. Farrington).
23. "Research and Analysis of Technology Trends, Engineering Management, and Statistical Methods," U.S. Army Aviation and Missile Command, 2000, \$9,974 (D.R. Utley-PI, P.A. Farrington, and P.J. Compton).
24. "Boeing/QE Tools – Metrics Class," Boeing Corporation – Decatur Facility, February 2001, \$9,188 (S.E. Gholston-PI and P.A. Farrington).
25. "Research and Assessment of Quality Engineering Tools and Engineering Management Communications in Support of Aviation and Missile Manufacturing," U.S. Army Aviation and Missile Command, August 2000 to September 2001, \$39,945 (P.A. Farrington-PI, D.R. Utley, and P.J. Compton).
26. "Evaluating the Efficacy of Low PPM Process Control Schemes in a High Volume Production Environment," National Science Foundation, September 2001 to June 2002, \$50,000 (P.A. Farrington-PI and S.L. Messimer).
27. "Systems Engineering of Unmanned Hybrid Vehicle," U.S. Army Aviation and Missile Command, March to September 2002, \$44,863 (R.A. Frederick-PI, J.I. Añón, P.J. Compton, P.A. Farrington, C. Corsetti, D. Berkowitz, D.B. Landrum, R.L. Norman, D.R. Utley, and B.E. Wells).
28. "Systems Engineering of Unmanned Vehicle," U.S. Army Aviation and Missile Command, March to September 2002, \$15,657 (J.I. Añón-PI, C. Corsetti, P.J. Compton, P.A. Farrington, R.A. Frederick, D. Berkowitz, D.B. Landrum, R.L. Norman, D.R. Utley, and B.E. Wells).

29. "LODESTARS SCR Support," NASA, Marshall Space Flight Center, April 2002 to August 2004, \$6,000.
30. "Grant for Metric Tool Development/Semantic Metrics for Object-Oriented Design," NASA, Goddard, January 2003 to December 2005, \$232,315 (L. Etzkorn-PI, P.A. Farrington, D.R. Utley, G. Cox, and S.E. Gholston).
31. "Development of Systems Engineering Tools and Techniques for PEO Aviation," U.S. Army Aviation and Missile Command Redstone Arsenal, Huntsville, Alabama, 2004 to 2005, \$143,408 (P.J. Compton-PI, J.R. Snider, S.E. O'Brien, P.A. Farrington, and M.A. Cottingham).
32. "Systems Engineering and Integration," NASA, Marshall Space Flight Center, June 2006 to September 2007, \$145,000 (P.J. Compton-PI, P.A. Farrington, D.R. Utley, and A.D. Youngblood).
33. "Establishing Performance Measures for Alabama's Transportation System," Alabama Department of Transportation, April 2007 to March 2008, \$118,526 (H. Shar-PI, P.A. Farrington, and A.D. Youngblood).
34. "Transit Modeling and Mitigating Traffic Congestion," University Transportation Center of Alabama," January 2008 to December 2008, \$148,306 - UAH/UAB Allocation - \$77,530, (Sharif H. Melouk (UAT)-PI, Burcu B. Keskin (UAT), Paul J. Compton, Phillip A. Farrington, Michael D. Anderson, and Virginia H. Sisiopiku (UAB)).
35. "Methods for Forecasting Freight in Uncertainty: Time Series Analysis of Multiple Factors," Alabama Department of Transportation, September 2009 to January 2011, \$168,527 (P.A. Farrington-PI and G.A. Harris).
36. "North Alabama Regional Science and Engineering Fair," Alabama Space Grant Consortium, January 2010 to May 2010, \$5,000.
37. "Auburn University use of Electronics Manufacturing Lab: TV7 Build," Auburn University, February 2012 to August 2012 \$15,000.
38. "F/GSA/RDEC/Accelerometer Prototype," U.S. Army AMRDEC, May 2012 to July 2012 \$2,334.
39. "NASA/DNF Funding for ENGINEER (IPT/InSPIRESS)" NASA, October 2010 to September 2012, \$350,614 (P.J. Benfield-PI, M. Turner, and P.A. Farrington).
40. "F/DOD/ARMY/SMDC/0005/AR/NS Sensor Development, SmartSAT Program," May 2014 to September 2014, \$300,000 (P.J. Benfield-PI, M. Turner, P.A. Farrington, G. Nicholls, and D. Lineberry).
41. "F/DOD/ARMY/SMDC/0005/AR/NS Sensor Development, SmartSAT Program - Equipment," May 2014 to September 2014, \$150,000 (P.J. Benfield-PI, M. Turner, P.A. Farrington, G. Nicholls, and D. Lineberry).
42. "F/DOD/ARMY/AMCOM/0001AA/AA/MST/Additive Manufacturing," April 2014 to December 2014, \$19,937.
43. "C/Jacobs/Impacts of Additive Manufacturing on the Propulsion Industrial Base," September 2014 to March 2015, \$99,998 (K. Sullivan-PI, P.A. Farrington, and S.L. Messimer).
44. "AE-T-UAH-001 T/O - 1 C/Intuitive/Amcom Express/TI-70 - Technical Support to the Manufacturing Science and Technology (MST)," September 2014 to September 2015, \$17,758.
45. "AE-T-UAH-001 T/O - 1 C/Intuitive/Amcom Express/TI-70 - Technical Support to the Manufacturing and Science Division," September 2014 to September 2015, \$17,758.
46. "AE-T-UAH-001 T/O - 1 C/Intuitive/Amcom Express/TI-70 - Technical Support to the Manufacturing Technology Division," March 2015 to September 2015, \$1,239.
47. "AE-T-UAH-001 T/O - 1 C/Intuitive/Amcom Express/TI-68 - Technical Support to the Manufacturing Technology Division," September 2014 to October 2015, \$22,643.
48. "NNM11AA01A F/NASA/MSFC/14.1/MSFC Aerospace and Systems Engineering Program Account 1," April 2011 to March 2016," \$1,318,813 (P.A. Farrington-PI, D.R. Utley, and L. Burns - Took over project in October 2012 after Dr. Michael Griffin original PI and Dr. Paul Collopy Co-Investigator left UAH).
49. "NNM11AA01A F/NASA/MSFC/14.1/MSFC Aerospace and Systems Engineering Program Account 2," May 2013 to March 2016, \$1,366,937 (P.A. Farrington-PI, D.R. Utley, and L. Burns).
50. "NNM11AA01A F/NASA/MSFC/14.1/MSFC Aerospace and Systems Engineering Program Account 3," May 2013 to March 2016, \$404,890 (P.A. Farrington-PI, D.R. Utley, L. Burns, and B. Mesmer).
51. "F/NSF Collaborative Research: Planning Grant: IUCRC for Advanced Vehicle Manufacturing," May 2014 to March 2016, 11,500 (P.A. Farrington-PI, S.L. Messimer, S.E. Gholston, Farbod Fahimi, and S. Graves).
52. "Presto Foundation/Additive Manufacturing Methods (AM) Development and Demonstration for Advanced Warhead Technology," May 2015 to August 2016, \$215,000 (P.A. Farrington-PI, S.L. Messimer, K. Zuo, and M. Banish).
53. "C/Teledyne Brown Engineering, Inc./Systems Engineering Supply Chain Management (SCM) - Account 1," August 2014 to August 2017, \$142,114 (P.A. Farrington-PI, J. Paxton, and S.B. Tucker).

54. "C/Teledyne Brown Engineering, Inc./ Systems Engineering Supply Chain Management (SCM) – Account 2," August 2014 to August 2017, \$80,995 (P.A. Farrington-PI, J. Paxton, and S.B. Tucker).

REFEREED PUBLICATIONS

1. "Automated Process Planning System for Turned Parts," *Integrated Manufacturing Systems*, Volume 5, Issue 4/5, 1994 (J.S. Rogers, P.A. Farrington, B.J. Schroer, and R.G. Hubbard) pp. 41-47.
2. "The Separation of Physical, Information, and Control Elements for Facilitating Reusability in Simulation Modeling," *The International Journal in Computer Simulation*, Volume 4, Number 3, 1994 (D.B. Pratt, P.A. Farrington, C.B. Basnet, H.C. Bhuskute, M. Kamath, and J.H. Mize) pp. 327-342.
3. "The Chamber of Commerce: A New Proactive Factor in Technology Transfer," *The Journal of Technology Transfer*, Volume 19, Number 2 (July), 1994 (B.J. Schroer, C. Zeimke, P.A. Farrington, and R.L. Simpson) pp. 34-42.
4. "Industry/University Interaction for Simulation-Based Process Improvement," *The Journal of Technology Transfer*, Volume 19, Numbers 3-4 (December), 1994 (S.L. Messimer, J.J. Swain, P.A. Farrington, and J.L. Evans) pp. 87-99. (Finalist for Technology Transfer Society Best Paper of the Year)
5. "Front-End Systems for Modeling Modern Manufacturing Systems," *Computers and Industrial Engineering*, Volume 28, Number 2, 1994 (P.A. Farrington, B.J. Schroer, and J. Wang) pp. 267-277.
6. "Measuring Technology Transfer Performance: A Case Study," *The Journal of Technology Transfer*, Volume 20, Number 2 (September), 1995 (B.J. Schroer, P.A. Farrington, S.L. Messimer, and J.R. Thornton) pp. 39-47.
7. "Understanding the Relationship and Interdependence of Concurrent Engineering and Computer Integrated Manufacturing: A Perspective from the Defense Community," *Engineering Management Journal*, Volume 7, Number 4, 1995 (P.A. Farrington and P.M. Martin) pp. 34-44.
8. "Developing Reusable Modeling Capabilities for Simulating High Volume Electronics Manufacturing Systems," *IEEE Transactions on Components, Packaging, and Manufacturing Technology, Part C: Manufacturing*, Volume 19, Number 2 (April), 1996 (P.A. Farrington, J.J. Swain, J.L. Evans, and J.S. Rogers) pp. 89-97.
9. "Evaluation of the Performance Domain of Cellular and Functional Layouts," *Computers and Industrial Engineering*, Volume 34, Number 1, 1998 (P.A. Farrington and J.W. Nazemetz) pp. 91-101.
10. "A Weighted Variance Capability Index for General Non-Normal Processes," *Quality and Reliability Engineering International*, Volume 15, Issue 5, 1999 (H.H. Wu, J.J. Swain, P.A. Farrington, and S.L. Messimer) pp. 397-402.
11. "Identification of Effective Problem Solving Tools to Support Continuous Process Improvement Teams," *Engineering Management Journal*, Volume 12, Number 2, 2000 (P.J. Compton and P.A. Farrington) pp. 23-29.
12. "A Comparison of Cohesion Metrics for Object-Oriented Systems," *Information and Software Technology*, Volume 46, Issue 10, 2004 (L.H. Etzkorn, S.E. Gholston, J.L. Fortune, C.E. Stein, D.R. Utley, P.A. Farrington, and G.W. Cox) pp. 677-687.
13. "Mentoring of Scientists and Engineers: A Comparison of Gender," *Engineering Management Journal*, Volume 16, Number 3, 2004 (J.M. Lyon, P.A. Farrington, and J.D. Westbrook) pp. 17-25.
14. "Exploring the Relationship between Cohesion and Complexity," *Journal of Computer Science*, Volume 1, Number 1, 2005 (C. Stein, G. Cox, L. Etzkorn, S.E. Gholston, S. Virani, P.A. Farrington, D.R. Utley, and J. Fortune) pp. 137-143.
15. "Development and Application of a Vehicle Procurement Model for Rural Fleet Asset Management," *Journal of Transportation Research Record*, Number 1927, December 2005 (N.S. Davenport, M.D. Anderson, and P.A. Farrington), pp. 123-127.
16. "Age Related Differences in the Motivation of Knowledge Workers," *Engineering Management*, Volume 18, Number 3, 2006 (R.L. Lord and P.A. Farrington) pp-20-26. (2006 Best Paper Award from the American Society for Engineering Management)
17. "A Knowledge-Based Cohesion Metric for Object-Oriented Software," *INFOCOMP*, Volume 5, Number 4, December 2006 (C. Stein, L. Etzkorn, S.E. Gholston, P.A. Farrington, and J. Fortune) pp. 44-53.
18. "Empirical Validation of the RCDC and RCDE Semantic Complexity Metrics for Object-Oriented Software," *The Journal of Computing and Information Technology*, Volume 15, Number 2, 2007 (G. Cox, S.E. Gholston, D.R. Utley, L. Etzkorn, C. Stein, P.A. Farrington, and J. Fortune) pp. 151-160.

19. "A Knowledge Modeling Approach to Evaluating Student Essays in Engineering Courses," *Journal of Engineering Education*, Volume 96, Number 3, July 2007 (S. Carpenter, H. Delugach, L. Etzkorn, P.A. Farrington, J. Fortune, D.R. Utley, and S. Virani) pp. 227-239.
20. "Semantic Software Metrics Computed From Natural Language Design Specifications," *IET Software (formerly IEE Proceedings Software)*, Volume 2, Number 1, February 2008 (C. Gall (Stein), S. Lukins, L. Etzkorn, S.E. Gholston, P.A. Farrington, D.R. Utley, J. Fortune, and S. Virani) pp. 17-26.
21. "Faster, Better, Cheaper in the Context of Systems Engineering," *Engineering Management Journal*, Vol. 20, No. 3, September 2008 (B.R. Meade and P.A. Farrington) pp. 19-25.
22. "A Preliminary Assessment of the Relationships Between Project Success, System Engineering, and Team Organization," *Engineering Management Journal*, Volume 20, Number 4, December 2008 (P.J. Componation, A.D. Youngblood, D.R. Utley, and P.A. Farrington) pp.40-46.
23. "Semantic Metrics: Metrics based on Semantic Aspects of Software," *Applied Artificial Intelligence*, Volume 23, Issue 1, January 2009 (C. Stein, L. Etzkorn, S.E. Gholston, P.A. Farrington, D.R. Utley, G. Cox, and J. Fortune) pp. 1-11.
24. "Developing Freight Analysis Zones at a State Level: A Cluster Analysis Approach," *Journal of Transportation Research Forum*, Volume 49, Number 1, Spring 2010 (G.A. Harris, M. Anderson, P.A. Farrington, N. Schoening, J. Swain, and N. Sharma) pp.59-68.
25. "An Exploration of Fisher's Framework for the Alignment of Supply Chain Strategy with Product Characteristics," *Engineering Management Journal*, Volume 23, Issue 1, March 2011 (G.A. Harris, P.J. Componation, P.A. Farrington) pp. 31-43.
26. "Antecedents of Proactive and Responsive Market Orientation," *International Journal of Sustainable Strategic Management*, Volume 4, Number 1, 2013 (P. Lamore, D. Berkowitz, and P.A. Farrington) pp. 2-22.
27. "Proactive/Responsive Market Orientation and Marketing – Research and Development Integration," *Journal of Product Innovation Management*, Volume 30, Issue 4, July 2013 (P. Lamore, D. Berkowitz, and P.A. Farrington) pp. 695–711.
28. "Transitioning from Teaching Lean Tools to Teaching Lean Transformation," *Journal of Enterprise Transformation*, Volume 4, Number 3, July-September 2014 (G. A. Harris, K.B. Stone, T. Mayeshiba, P.J. Componation, and P.A. Farrington) pp. 191-205.
29. "Does Your Culture Encourage Innovation?" *The Defense Acquisition Research Journal*, Volume 22, Number 22, April 2015, (C. Whittinghill, D. Berkowitz, and P.A. Farrington) pp 216-239.
30. "In-Process Stress and Deformation in SLM Overhanging Features," *Additive Manufacturing*, submitted November 2015 under review (A.E. Patterson, S.L. Messimer, P.A. Farrington, C.L. Carmen, and J.T. Kendrick).

BOOKS & BOOK CHAPTERS

1. "Systems Modeling and Simulation," in *Integrated Product, Process, and Enterprise Design*, edited by Ben Wang, Chapman and Hall, 1997 (P.A. Farrington, J.J. Swain, and S.L. Messimer).
2. *1999 Winter Simulation Conference Proceedings*, Institute of Electrical and Electronics Engineers, Piscataway, New Jersey, 1999 (edited by P.A. Farrington, H.B. Nembhard, D.T. Sturrock, and G.W. Evans).

EDITED/NON-REFEREED PUBLICATIONS

1. "Paving the Way for Concurrent Engineering," *Industrial Engineering*, Volume 26, Number 9, 1994 (with G.A. Maddux and P. Martin).
2. "Training for Concurrent Engineering Success," *ARMY RD&A Bulletin*, March-April, 1994 (with P. Martin and G.A. Maddux).
3. "In Introduction to the Special Issue of *Journal of Enterprise Transformation*, Preparing the Organization for Enterprise Transformation," *Journal of Enterprise Transformation*, Volume 4, Number 3, July-September 2014 (P.A. Farrington, G.A. Harris, and H. McManus) pp. 189-190.

CONFERENCE PAPERS

1. "Forging a Joint Academic Partnership in Manufacturing Systems Engineering," *Autofact 1988 Conference Proceedings*, October 31-November 2, Chicago, Illinois (with J.W. Nazemetz).
2. "Traditional CAPP Inhibits Integration," *Spring 1989 IIE Conference Proceedings*, May 14-17, Toronto, Canada (with J.W. Nazemetz and J.H. Mize).
3. "Experiences in Developing an Object-Oriented Modeling Environment for Manufacturing Systems," *Proceedings of the 1990 Winter Simulation Conference*, December 9-12, New Orleans, Louisiana (with C. Basnet, D.B. Pratt, M. Kamath, C. Karacel, and T.G. Beaumariage).
4. "A Framework for Highly Reusable Simulation Modeling: The Separation of Physical, Information, and Control Elements," *Proceedings of the 24th Annual Simulation Symposium 1991 SCS Eastern Multiconference*, April 1-5, New Orleans, Louisiana (with D.B. Pratt, C. Basnet, H. Bhuskute, M. Kamath, and J.H. Mize).
5. "Computer Integrated Manufacturing and Technology Transfer for Improving Aerospace Productivity," *Proceedings of the AIAA Space Programs and Technology Conference*, March 24-27, 1992, Huntsville, Alabama (with J. Sica).
6. "System Integration: The Forcing Function for Enterprise Rationalization," *Proceedings of Manufacturing International 1992*, March 29-April 1, Dallas, Texas (with J.H. Mize and D.B. Pratt).
7. "A Conceptual Framework for Rapid Simulation Development," *Proceedings of Second Beijing International Conference on System Simulation and Scientific Computing - Volume II*, October 20-23, 1992, Beijing, China (with Y. Feng, J. Wang, and B.J. Schroer).
8. "Design of Simulation Experiments with Manufacturing Applications," *Proceedings of 1993 Winter Simulation Conference*, December 12-15, Los Angeles, California (with J.J. Swain).
9. "Industry/University Interaction for Simulation-based Process Improvement in Electronics Manufacturing," *Proceedings of the Technology Transfer Society 1994 Annual Meeting*, June 22-24, Huntsville, Alabama (with S.L. Messimer, J.L. Evans, and J.J. Swain).
10. "Designing Simulation Experiments for Evaluating Manufacturing Systems," *Proceedings of the 1994 Winter Simulation Conference*, December 11-14, Orlando, Florida (with J.J. Swain).
11. "Simulation and Undergraduate Engineering Education: The Technology Reinvestment Project," *Proceedings of 1994 Winter Simulation Conference*, December 11-14, Orlando, Florida (with S.L. Messimer and B.J. Schroer).
12. "Simulators as a Tool for Rapid Manufacturing Simulation," *Proceedings of 1994 Winter Simulation Conference*, December 11-14, Orlando, Florida (with J.J. Swain and B.J. Schroer).
13. "Impact of the Technology Reinvestment Project on Manufacturing Education," *AIAA Space Programs and Technologies Conference*, September 27-29, 1994, Huntsville, Alabama (with B.J. Schroer, S.L. Messimer, D.B. Wallace, and G.L. Workman).
14. "Reusable Modeling Capabilities for Simulating High Volume Electronics Manufacturing Systems," *IEEE International Electronics Manufacturing Technology Symposium*, October 2-4, 1995, Austin, Texas (with J.J. Swain, M. Ayokanmbi, M. Cottingham, D. Deplachett, J.L. Evans, and J.S. Rogers).
15. "Simulation Environment for Electronics Manufacturing," *Proceedings of 1995 Winter Simulation Conference*, December 3-6, 1995, Orlando, Florida (with J.S. Rogers, B.J. Schroer, J.J. Swain, J.L. Evans, and Y.C. Feng).
16. "A Generic Simulator for Modeling Manufacturing Modules," *Proceedings of 1996 Winter Simulator Conference*, December 8-11, San Diego, California (with B.J. Schroer, J.J. Swain, and D.R. Utley).
17. "Simulation of Memory Chip Line Using an Electronic Manufacturing Simulator," *Proceedings of 1997 Winter Simulation Conference*, December 7-10, Atlanta, Georgia (with D.N. Estremadoyro, B.J. Schroer, and J.J. Swain).
18. "Using Risk Reduction as a Team Performance Metric," *Proceedings of the 1998 Industrial Engineering Research Conference*, May 9-10, Banff, Alberta, Canada (with P.J. Componation, R.J. Giorcelli, and J. Byrd).
19. "SimBuilder: An Environmentally Conscious Manufacturing Simulation System," *Proceedings of the 2nd International Conference on Engineering Design and Automation*, August 9-12, 1998, Maui, Hawaii (with D.K. Russell and S.L. Messimer).
20. "Tools for Rapid Simulation Model Definition in the High Volume Electronics Manufacturing Industry," *Proceedings of the 2nd International Conference on Engineering Design and Automation*, August 9-12, 1998, Maui, Hawaii (with J.L. Evans, J.S. Rogers, and J.J. Swain).

21. "Incorporating Environmental Issues in a Filament Winding Composite Manufacturing System," *Proceedings of the 1998 Winter Simulation Conference*, December 13-16, Washington, D.C. (with D.K. Russell, S.L. Messimer, and J.J. Swain).
22. "Identification and Application of Problem Solving Tools to Support Continuous Process Improvement Teams," *Proceedings from the 1999 ASEM National Conference*, October 21-23, Virginia Beach, Virginia (with P.J. Compton).
23. "Organizational Affects on the Near Term Technology Infusion Process," *Proceedings from the 2000 ASEM National Conference*, October 4-7, Washington D.C. (with A.Y. Armstrong, J.D. Westbrook, and D.R. Utley).
24. "Survey of Worker Perception of Quality Systems Implementation in High Technology Service Organizations," *Proceedings from the 2000 ASEM National Conference*, October 4-7, Washington D.C. (with D.R. Utley and S.E. Gholston).
25. "A Comparison of Worker Perception of Quality Systems Implementation in Service and Manufacturing Organizations," *Proceedings of the ICC&IE/IEMS 2001 Joint Meeting*, March 5-7, Cocoa Beach, Florida (with D.R. Utley and S.E. Gholston).
26. "Evaluating Technology Impacts on Mission Success of Future Launch Vehicles," *Proceedings of the 52nd International Astronautical Congress*, October 1-5, 2001, Toulouse, France (with A.W. Wilhite, S.E. Gholston, and J.J. Swain).
27. "Quality Management, Systems Engineering, and Project Management: A Comparison," *Proceedings from the 2001 ASEM National Conference*, October 11-13, Huntsville, Alabama (with S.E. Gholston and B.R. Sarker).
28. "Using an Undergraduate Design Course as an Experimental Environment for Team Development Research," *Proceedings from the 2002 American Society for Engineering Management National Conference*, October 2-5, Tampa, Florida (with D. R. Utley and R.A. Frederick).
29. "Comparison of the Team Attributes in a Controlled Environment," *Proceedings from the 2002 American Society for Engineering Management National Conference*, October 2-5, Tampa, Florida (with D.R. Utley, A. Armstrong, R. Henriksen, and R. Stallworth).
30. "Team Progress – Can It Be Quantified and Tracked?" *Proceedings from the 2002 American Society for Engineering Management National Conference*, October 2-5, Tampa, Florida (with D.R. Utley and P.J. Benfield).
31. "Investigating a Semantic Metrics Suite for Object-Oriented Design," *Proceedings of the 3rd Annual NASA Office of Safety and Mission Assurance Software Assurance Symposium*, July 30-August 1, 2003, Morgantown, West Virginia (with L.H. Etzkorn, C. Stein, G.W. Cox, S.E. Gholston, and D.R. Utley)
32. "Launch System Trajectory Performance Modeling and Sensitivity Analysis using Response Surface Methods," *Joint Propulsion Conference*, July 20-23, 2003, Huntsville, Alabama (with A.W. Wilhite, L. McKinney, and N.T. Lovell).
33. "An Evaluation of Integrated Product Team Performance using Katzenbach and Smith's Team Performance Curve," *Proceedings from the 2003 American Society for Engineering Management National Conference*, October 15-18, St. Louis, Missouri (with C.A. Ise and D.R. Utley).
34. "An Evaluation of Integrated Product Team Performance Using Larson and Lafasto's Theory of Team Characteristics," *Proceedings from the 2003 American Society for Engineering Management National Conference*, October 15-18, St. Louis, Missouri (with J. Fortune and D.R. Utley).
35. "Computing Software Metrics from Design Documents," *Proceedings of the 42nd Annual ACM Southeast Conference*, April 2-3, 2004, Huntsville, Alabama (with C. Stein, L. Etzkorn, D.R. Utley, G. Cox, J. Fortune, and S.E. Gholston).
36. "New Suite of Semantic Metrics for Object-Oriented Software," *1st International Workshop on Software Audit and Metrics*, April 13-14, 2004, Porto, Portugal (with C. Stein L. Etzkorn, G. Cox, S.E. Gholston, D.R. Utley, and J. Fortune).
37. "Examining a Semantic Metrics Suite for Object-Oriented Design," *Proceedings of the 4th Annual NASA Office of Safety and Mission Assurance Software Assurance Symposium*, July 20-22, 2004, Morgantown, West Virginia (with L.H. Etzkorn, C. Stein, G. Cox, S.E. Gholston, and D.R. Utley)
38. "Empirical Evaluation of Age-Related Differences in the Motivation of Older Knowledge Workers," *Proceedings from the 2004 ASEM National Conference*, October 20-23, Alexandria, Virginia (with R.L. Lord).

39. "Product Characteristics: The Establishment of Key Attributes for Product Classification," *Proceedings of the 2006 Industrial Engineering Research Conference*, May 21-24, Orlando, Florida (with G.A. Harris, K.W. Sullivan, and P.J. Componation).
40. "Faster, Better, Cheaper in the Context of Systems Engineering," *Proceedings from the 2005 American Society for Engineering Management National Conference*, October 26-29, Virginia Beach, Virginia (with B. Meade).
41. "Product Quality Improvement Considering Six-Sigma Technology and Reliability Analysis – A Case Study for Electronic Products," *Proceedings of the 2006 American Society for Engineering Management National Conference*, October 25-28, Huntsville, Alabama (with G. Wu and J. Barts).
42. "A True Decomposition of Hotelling T² Statistic for Diagnosis of Component Contribution," *Proceedings of the 2006 American Society for Engineering Management National Conference*, October 25-28, Huntsville, Alabama (with D. Schieanu).
43. "A Method for Monitoring Variance in Industrial Processes with Individual Observations," *Proceedings of the 2007 Industrial Engineering Research Conference*, May 19-23, Nashville, Tennessee (with D. Schieanu).
44. "Application of Real Options Approach to the Economic Valuation of Setup Reduction," *Proceedings of the 2007 Industrial Engineering Research Conference*, May 19-23, Nashville, Tennessee (with F.M. Ayokanmbi and S.L. Messimer).
45. "Integrating Lean and Six-Sigma into the Industrial Engineering Curriculum: An Engineering Management Perspective," *Proceedings of the 2007 Industrial Engineering Research Conference*, May 19-23, Nashville, Tennessee (with D.R. Utley and G.A. Harris).
46. "A Method for Monitoring Variance in Industrial Processes with Individual Observations," *Proceedings of the 2007 American Society for Engineering Management National Conference*, November 6-10, Chattanooga, Tennessee (with D. Schieanu).
47. "Assessing the Relationships between Project Success, Systems Engineering, and Team Organizations," *Proceedings of the 2007 American Society for Engineering Management National Conference*, November 6-10, Chattanooga, Tennessee (with P. Componation, D.R. Utley, A. Youngblood, and P.J. Benfield).
48. "A Framework of Improving Reliability in Power Supply Development," *Proceedings of the 2007 American Society for Engineering Management National Conference*, November 6-10, Chattanooga, Tennessee (with G. Wu and X. Huang).
49. "Classification of Products for Alignment with Supply Chain Strategy," *Proceedings of the 2007 American Society for Engineering Management National Conference*, November 6-10, Chattanooga, Tennessee (with K. Sullivan, G. Harris, and P. Componation).
50. "Developing Freight Analysis Zones at a State Level: A Cluster Analysis Approach," *Proceedings of the 49th Annual Transportation Research Forum*, March 17-19, 2008, Houston, Texas (with G.A. Harris, M.D. Anderson, N.S. Schoening, and J.J. Swain).
51. "Development of a Companion Set of Charts – Soft Sensor and Directional Moving Range – For Fault Monitoring, Detection and Diagnosis with Applications to Gas Turbine Engines," *Proceedings of ASME Turbo Expo 2008: Power for Land, Sea and Air*, June 9-13, Berlin Germany (with D. Scheianu).
52. "Knowledge Workers and Managements Perceptions of Organizational Culture, Leadership Style and Individual Commitment and their Impact on Organizational Outcomes in Technology-Driven Organizations," *Proceedings of the 2008 American Society for Engineering Management National Conference*, November 12-15, West Point, New York (with T. Maddox and E. Roper).
53. "The Coverage of Lean Principles in Higher Education Curricula," *Proceedings of the 2009 American Society for Engineering Management National Conference*, October 14-17, Springfield, Missouri (with L. Blanchard, G.A. Harris, and D.R. Utley).
54. "The Development of an Integrated Freight Planning Framework," *Proceedings of the 2010 Industrial Engineering Research Conference*, June 5-9, Cancun, Mexico (with G.A. Harris and M. Anderson).
55. "Development of an Improved Soft Sensor for Industrial Processes Fault Detection and Diagnosis," *Proceedings of the 2010 Industrial Engineering Research Conference*, June 5-9, Cancun, Mexico (with D. Scheianu).
56. "Freight Data Mining Strategy Using Socio-economic Variables For Metropolitan Planning", *Proceedings of the 2010 IEEE International Conference on Granular Computing and Data Mining*, August 14-16, San Jose, California (with N.S. Sharma, G.A. Harris, M.D. Anderson, and J.J. Swain).

57. "The IPT Program at UAHuntsville: An Innovative Approach to Design Education and STEM Outreach," *Proceedings of the 2011 ASEE Annual Conference*, June 25-29, Vancouver, B.C. (with P.J. Benfield and M. Turner).
58. "Assessing the Relationship between Systems Engineering MPTs and Integrated Product Team Performance," *62nd International Astronautical Congress 2011*, October 3-7, Cape Town, South Africa (with Andrea Kirby and Paul Componation).
59. "Impact of Integrated Product Team Course on Skill Development and Workplace Preparation for Graduating Engineering Seniors," *Proceedings of the 2012 ASEE Annual Conference*, June 25-29, San Antonio, Texas (with D. Smith, M. Dillihunt, P.J. Benfield, and M. Turner).
60. "Impact of Innovative Student Project for the Increased Recruitment of Engineering and Science Students (InSPIRESS)," *Proceedings of the 2012 ASEE Annual Conference*, June 10-13, San Antonio, Texas (with M. Dillihunt, D. Smith, P.J. Benfield, and M. Turner).
61. "Value-Based Assessment of DoD Acquisitions Programs," *Conference on Systems Engineering Research 2013*, Georgia Institute of Technology, March 19-22, Atlanta, Georgia (with I. Maddox and P. Collopy).
62. "Systems Engineering and Project Success in Government and Commercial Organizations," *Proceedings of the American Society for Engineering Management 2013 International Annual Conference*, October 2-5, Minneapolis, Minnesota (with P.J. Componation, M. Dorneich, G. Hu, and J.L. Hansen).
63. "Building a Path to Elegant Design," *Proceedings of the American Society for Engineering Management 2014 International Annual Conference*, October 15-18, Virginia Beach, Virginia (with M. Watson, M. Griffin, L. Burns, W. Colley, P. Collopy, J. Doty, S. Johnson, R. Malak, J. Shelton, D.R. Utley, M. Yang, and Z. Szajnarfarber).
64. "A Brief Review of Systems Engineering Programs and a Vision for the Future of Systems Engineering Education," *Proceedings of the American Society for Engineering Management 2015 International Annual Conference*, October 7-10, Indianapolis, Indiana (with B. Mesmer).
65. "NASA Systems Engineering Research Consortium: Defining the Path to Elegance in Systems," *Proceedings of the Conference on Systems Engineering Research 2016*, March 22-24, Huntsville, Alabama (with M. Watson).

CONFERENCE PRESENTATIONS

1. "Systems Integration: The Forcing Function for Enterprise Rationalization," *1991 Conference on Systems Integration*, October 6-9, Orlando, Florida (with D.B. Pratt).
2. "The Integration Factor in CIM," *1991 Conference on Systems Integration*, October 6-9, Orlando, Florida (with G.L. Workman and S. Wise).
3. "Teaching NDE Within Concurrent Engineering - A Major Step Forward for Total Quality Management," *American Society for Nondestructive Testing 1992 Fall Conference*, November 16-20, Chicago, Illinois (with G.L. Workman).
4. "Strategy for Multifunctional Use of Simulation Models," *1994 ORSA/TIMS International Meetings*, April 20-24, Boston, Massachusetts (with K.Q. Pickell, J.J. Swain, S.L. Messimer, and J.L. Evans).
5. "Strategy for the Development and Implementation of Generic Modeling Tools," *1995 ORSA/TIMS International Meetings*, April, Los Angeles, California (with J.J. Swain, S.L. Messimer, and J.L. Evans).
6. "The Technology Reinvestment Program as a Mechanism for Improving Educational Quality," *1995 Industrial Engineering Research Conference*, May 24-25, Nashville, Tennessee (with S.L. Messimer, J.J. Swain, and B.J. Schroer).
7. "Rapid Modeling of High Volume Electronic Manufacturing Systems using WITNESS," *1995 WITNESS Users Group Meeting*, June 21-22, Cleveland, Ohio (with J.L. Evans, J.J. Swain, and S. Thomason).
8. "Integrated Product Development Overview," *Huntsville CALS Interest Group: Configuration Management/Integrated Product Development Workshop*, March 8, 1996, Redstone Arsenal, Alabama.
9. "Do's and Don'ts of Dossier Development – Preparing for the Tenure Review Decision," *2002 American Society for Engineering Management National Conference*, October 2-5, 2002, Tampa, Florida (with R.M. Wyskida).
10. "A Review of the Process Used to Generate an Objective Observation Data Collection Tool for Use in Teaming Evaluations," *2003 American Society for Engineering Management National Conference*, October 15-18, St. Louis, Missouri (with D.R. Utley and S. Carpenter).
11. "An Asset Management System for Rural Transportation Vehicle Procurement," *Transportation Research Board 2005 Annual Meeting*, January 9-13, Washington, D.C. (with N.S. Davenport and M.D. Anderson).
12. "Integrating Lean Topics into Core Industrial & Systems Engineering Courses at UAH," *MIT Lean Aerospace Initiative Education Network Annual Conference*, November 2005, Los Angeles, California (with G.A. Harris).

13. "Integrating Lean Topics into Core Industrial & Systems Engineering Courses at UAH," *Lean Education Academic Network*, January 2006, Los Angeles, California (with G.A. Harris).
14. "Integrating Lean Topics into Core ISE Courses," *MIT Lean Aerospace Initiative 2006 Plenary*, April, San Antonio, Texas (with G.A. Harris).
15. "Lean, Six-Sigma, and the Education of Industrial Engineers," *LEAN-EDNet*, October 2006, Worcester, Massachusetts.
16. "Integrating Lean and Six-Sigma Concepts into an IE Curriculum," *2006 ASEM National Conference*, October 25-28, Huntsville, Alabama.
17. "Integrating Lean Topics into the Industrial and Systems Engineering Curriculum," Invited presentation at the *Association for Manufacturing Excellence 2007 Annual Conference*, November 7-9, Chicago, Illinois.
18. "IE Leadership and Lean Systems," Invited presentation at *IIE Mid-Atlantic Region Student Conference*, Tennessee Technological University, February 8, 2008, Cookeville, Tennessee.
19. "Panel Session – Lean Engineering Education," *Frontiers in Education Conference*, October 22-25, 2008, Saratoga Spring, New York.
20. "Assessing Systems Engineering Procedures Impact on Project Success," *2010 ASEM Annual National Conference*, October 13-16, Rogers, Arkansas (with P.J. Compton, D.R. Utley, and P.J. Benfield).
21. "The Strategic Partnership for the Advancement of Engineering Education (SPACE) Program - Teaching the Next Generation of Scientists and Engineers the NASA Spacecraft and Mission Design Process," *Lunar Planetary Science Conference 2011*, March 7-11, The Woodlands, Texas (with P.J. Benfield, M.W. Turner, C.J. Runyon, and J. Hakkila).
22. "The Academic AO Project: The Radio Astronomy on the Moon and Europa Missions," *Lunar Planetary Science Conference 2011*, March 7-11, The Woodlands, Texas (with M.W. Turner, P.J. Benfield, C.J. Runyon, and J. Hakkila).
23. "How to Use a Senior Design Program for STEM Outreach," *2011 Industrial Engineering Research Conference*, May 21-25, Reno, Nevada (with P.J. Benfield, and M.W. Turner).
24. "ENGINEER Program Overview," *2011 Systems and Software Engineering Forum*, July 26-27, Huntsville, Alabama (with P.J. Benfield, and M.W. Turner).
25. "Thoughts on Integrating Lean into the Industrial Engineering Curriculum at The University of Alabama in Huntsville," *2011 Lean Educators Conference*, September 29-October 1, Huntsville, Alabama.
26. "Using FAF3 Data to Develop Freight Generation Models for Urban Areas," *2011 METRANS National Urban Freights Conference*, October 12-14, Long Beach, California (with M. Anderson, M.C. Dondapati, and J.J. Swain).
27. "Developing Partnerships for an Undergraduate Design Program on Planetary Science Mission Concept Development," *43rd Lunar and Planetary Science Conference*, March 19-23, 2012, The Woodlands, Texas (with P.J. Benfield, M.W. Turner, and B.K. Mitchell).

TEACHING

ISE 321	Engineering Economy
ISE 378	Materials and Manufacturing Processes
ISE 423/523	Statistical Quality Control
ISE 426/526	Design and Analysis of Experiments
ISE 428	Systems Analysis and Design I
ISE 429	Systems Analysis and Design II
ISE 430/530	Modern Manufacturing/Production Systems
ISE 630	Computer Integrated Manufacturing
ISE 641	Advanced Quality Control (Developed Course)
ISE 670	Integrated Product and Process Design (Developed Course)
ISE 723	Engineering Economic Analysis
EM/ISE 761	Evolving Theory of Industrial and Systems Engineering and Engineering Management
ISE 790	Advanced Statistical Applications (Multiple Regression & Multivariate Analysis)

STUDENT ADVISING

Ph.D. Committee Chair:

1. Prins, William S. "Modeling Reliability Influences on Reliability and Life Cycle Costs" 1995. (Elected to UAH-COE Distinguished Engineering Alumni Academy).
2. Russell, Dawn K. "A Methodology for Designing Modular Multi-Criteria Discrete Event Simulations" 1997.
3. Hollis, Ron, "Development of a Cost Estimation Method for an Automated Fabrication Process" 2001. (Elected to UAH-COE Distinguished Engineering Alumni Academy).
4. Hughes, William, "Prediction Models for Validating Development Phase Cost Estimates For Missile Development Programs" 2003.
5. Lyon, Michael, "Mentoring of Scientists and Engineers: Dyadic and Formality Effects on Career Development and Psychosocial Interactions" 2003 (Elected to UAH-COE Distinguished Engineering Alumni Academy).
6. Bell-Roundtree, Carolyn, "Does Manager Behavior Influence Knowledge Worker Job Satisfaction and Organizational Commitment Attitudes? A Validation of Kouzes and Posner's Transformational Leadership Theory" 2004.
7. Lord, Robert, "Empirical Validation of Classical Behavioral Theories with Respect to the Motivation of Older Knowledge Workers" 2004.
8. Ayokanmbi, Michael, "Evaluation of Setup Time Reduction Alternatives Using a Real Options Approach" 2007.
9. Sullivan, Kenneth, "A Methodology for the Classification of Products to Effectively Support Supply Chain Alignment" 2008.
10. Scheianu, Dorin, "Multivariate Control Charts for Industrial Process Fault Detection, Monitoring, and Diagnosis" 2009.
11. Lamore, Paul, "An Empirical Investigation of the Antecedents of Market Orientation and Organizational Effectiveness" 2009 (Co-Advisor with David Berkowitz).
12. Roper, Everett, "The Relationship between Organizational Culture, Management Leadership Style and Organizational Commitment and their Impact on Organizational Outcomes in a High-Technology Organization" 2009 (Co-Advisor with David Berkowitz).
13. Whittinghill, Craig, "An Evaluation of the Perceived Organizational Culture and Innovative Climate of a Department of Defense Community of Organizations" 2011 (Co-Advisor with David Berkowitz).
14. Martin, Jose, "Value Centric Methodology for Requirement Verification Under Uncertainty" 2013 (Co-Advisor with Paul Collopy).
15. LaDuca, Michelle, "The Relationship between Role Conflict and Employee Retention in a Government Engineering Organization" 2014 (Co-Advisor with Eric Sholes).
16. Adams, Steve, "Comparative Analysis and Characterization of the Factors Impacting Cost Growth for Systems and Systems of Systems within the DoD" 2014 (Awarded posthumously).
17. Barnawi, Waleed, "Integrated Consensus-Based Frameworks for Unmanned Vehicle Routing and Targeting Assignment" 2014 (Advisor Gillian Nicholls).

MSE Committee Chair:

Thesis

1. Jones, David, "Investigation of the Effects of Sample Thickness and Longitudinal Transducer Frequency on the Mechanical Properties of Solid Rocket Booster Propellant" 1994.
2. DePlachett, Denise K, "Evaluation of Alternative Strategies for Metamodeling and Model Decomposition" 1995.
3. Ye, Xiamou, "Simulation Based Investigation into the Basic Behavior of Manned Manufacturing Cells" 1996.
4. Hicks, David P., "Capillary Tube Flow: Measurement Systems Analysis" 1997.
5. Benzie, Mark, "Taguchi Methods Approach to Analyzing Springback in Composite Component Fabrication" 1998.
6. Foshee, Gary, "Development of a Simulation Model of a Typical Installation and Repair System with Work Processes Performed at Customer Sites" 1998.
7. Panneerselvam, Ashok, "Design of an Adaptive Time-Between-Event Cumulative Sum Control Chart for Continuous Inspection" 2003.
8. Cassibry, Philip, "A Supportability Simulation for the Forward and Aft Integrated Electronics Assemblies on the Space Transportation System Solid Rocket Booster" 2005.
9. Keller, Shari, "Development and Application of a Space Launch System Value Model to a Lunar Helium-3 Mining Mission Case" 2013 (Co-Advisor with Paul Collopy).

Plan II Paper/Capstone Project

1. Chao, Wei-Ke, "An Analysis of Toyota Kanban System" 1993.
2. Jaishankar, Vellore, "A Comparative Analysis of MRP, JIT, and OPT" 1994.
3. Pickell, Kimbrelly, "Application of Decomposition to the Simulation of an Electronics Assembly Line" 1994.
4. Ramaswamy, A.V., "Comparative Analysis of Alternative Modular Manufacturing Rules" 1994.
5. Moore, Chris J. "The Development of Teams at Sterling Plumbing Group, Inc." 1995.
6. May, Wylie, "THAAD Communication Analysis" 1996.
7. Hollis, Ronald, "The Development of a 21st Century Product Development Company" 1997.
8. Darzi, Jamie, "Process Capability Indices" 2000.
9. Martin, James, "A Discrete Event Simulation of the Integrated Assembly, Checkout, and Performance Acceptance Testing Process for Boeing's Delta IV Rocket Booster Plant" 2000.
10. Ruta, William B, "A Practical Approach to Cost as an Independent Variable Implementation within the Program Executive Office - Tactical Missiles (Best Practices)" 2001.
11. Rosson, Christopher, "An Investigation of Leadership and the Use of Leadership Tools to Predict Team Success" 2001.
12. Boley, Scott, "Response of Various Control Charts to Non-Normal Data" 2002.
13. Adams, Steve, "Using Discrete Simulation to Optimize User Licenses" 2002.
14. Woodfin, Eric, "Use of a Design Experiment to Improve Intermodulation Characteristics of 50Ω Coaxial Cable and its Effect on an Inexperienced Organization's Culture" 2003.
15. Jose, Jomy, "Physical Simulation Models as a Tool for Teaching Manufacturing Systems Design" 2003.
16. Kittlitz, Rudolph, "Transforming the Poisson Distribution to Symmetry for SPC Applications and other Statistical Analysis" 2003.
17. Dale Dugal, "No Cracks: A Study of the Documentation and Implementation of a Requirement" 2003.
18. Patil, Harshal, "Application and Development of Control Charting Schemes on High Volume Low Defect Levels" 2004.
19. Vasse, Robert H., "Crossbow – An Individual Soldier Missile" 2004.
20. Roy, Fred, "T-0 Umbilicals Impact on Cost/Schedule Using Vision Spaceport's Strategic Planning Tool" 2004.
21. Dee, Michael, "Integrated Product Delivery System: A System for Managing Product Development Projects for the Enterprise" 2005.
22. Meade, Brian, "Faster, Better, Cheaper in the Context of Systems Engineering" 2005.
23. Buck, William, "Improving Chemical Reactor Operations Using DOE" 2005.
24. Carlisle, Wylie, "Analysis of a Six Sigma Project to Reduce Cycle Time in Generating Life Cycle Cost Estimates" 2005.
25. Shapira, Gadi, "The Impact of Foreign Managers on U.S. Based Companies" 2006.
26. Brockway, Stanley, "Using Statistical Techniques to Develop a Model Predicting the Outcome of a Season of Division I College Football" 2007.
27. Duncan, Leh, "The Marriage of Lean and Industrial Engineering" 2007.
28. Sampson, Scott, "Deciding Whether to Upgrade Your System Architecture Development Tools" 2007.
29. Henson, Nicolas, "Sustainability Metrics for the Chemical Industry's First Line Employees" 2007.
30. McDougal, Kris, "The Application of a Trade Study Methodology to Determine Which Capabilities to Implement in a Test Facility Data Acquisition System Upgrade" 2008.
31. McAllister, Chris, "Safe Arm Fuze Failures" 2009.
32. Noffke, Jacob, "A Comparison of Employee Relationships with Respect to Motivation and Organizational Culture for Onsite and Offsite Employees" 2010.
33. Pressnell, Chad, "Using SMARTER to Identify Efficiencies in Missile Defense Flight Testing" 2010.
34. Wood, Matthew, "Application of Learning Curve Models to Assist in Proposal Evaluations for Firm Fixed Price Contracts" 2010.
35. Maddox, Ian, "Feasibility Analysis: Design of an Orbital Hybrid Launch Facility" 2012.
36. Helmbrecht, Steve, "Team Cohesion and Its Effect on Performance: A Study of Unit Cohesion and Its Effect on Performance in an Academic Setting at the High School Level" 2012.
37. Rhodes, James, "Light Meter Turn Around Time Reduction: A Lean Six Sigma Project" 2012.
38. Doctor, Michael, "Reviving Innovation at the Naval Surface Warfare Center in Panama City" 2012.
39. Lambert, Morgan "Virtual Teams: Technology and Skill" 2012.
40. Walters, Joshua, "Rigid Wall Shelter Improvement Trade Study: A Study of Program Alternatives" 2013.
41. Tucker, Stephen B., "National Aeronautics and Space Administration Space Launch System Supply Chain Mapping and Supply Chain Risk Management for Logistics Operations" 2013.
42. Brown, Maria, "A Cultural Analysis in Response to Change" 2013.

43. Davis, Jesse, "Utilization of a Simple Multi-Attribute Trade Study within a Team Structure to Down Select Optimal Welding Method for Use on Critical Joint of a Military Asset" 2013.
44. Weiland, Matthew J., "Survey of Predictive Modeling Methods on Car Insurance Data" 2014.
45. Colvett, C. Daniel, "Bi-Directional Safety Analysis for Network Security" 2014.

SERVICE

National Service Activities

Reviewer, *Computers and Industrial Engineering, Engineering Design and Automation, Engineering Management Journal, Integrated Manufacturing System, & Journal of Manufacturing Systems*

Book Reviewer, Prentice Hall

Session Moderator - 1991 Fall Institute of Industrial Engineers Conference

Session Moderator - 1993 North American Manufacturing Research Conference

Judge - 1994 IIE/OR Division Application Award

Co-Track Coordinator, Enterprise Wide Modeling, 1995 Industrial Engineering Research Conference

Co-Track Coordinator, Quality in Education, 1995 Industrial Engineering Research Conference

Session Chair, Enterprise Wide Modeling, 1995 Industrial Engineering Research Conference

Track Coordinator, Software/Modelware, 1995 Winter Simulation Conference

Track Coordinator, Manufacturing, 1996 Winter Simulation Conference

Session Chair, 2nd International Conference on Engineering Design and Automation, August 1998

Associate Editor, *Journal of Engineering Valuation and Cost Analysis*, 1998-2001

Proceedings Co-Editor, 1999 Winter Simulation Conference

Co-Technical Program Chair, 2001 ASEM National Conference

Functional Director for Communications, ASEM, 2002-2006

Session Chair 2003, 2004, 2005 ASEM National Conferences

Session Chair, 2007 Industrial Engineering Research Conference

Reviewer, 2008 Industrial Engineering Research Conference

Associate Editor, *Engineering Management Journal*, 2005-2008

Treasurer, American Society for Engineering Management, 2006-2009

Reviewer, 2013 Conference on Systems Engineering Research

Co-Editor *Journal of Enterprise Transformation*, Volume 4, Number 3, July-September 2014

Special Issue: Preparing the Organization for Enterprise Transformation

Reviewer, 2014 ASEM International Annual Conference

Chair of Fellows, American Society of Engineering Management, 2014-2015

Local/Regional Service Activities

IIE Chapter 69 – Huntsville Area

Vice President (1994-1995), President (1995-1997), Treasurer (2000-2001), Board Member (1993-2008)

Robotics Technology Park – Phase 1 Advisory Committee (2008-2011)

Robotics Technology Park – Phase 2 Advisory Committee (2008-2011)

Robotics Technology Park – Executive Board (2011-2013 – Appointed by Governor Bob Riley October 2010)

Vice Chairman 2011-2012, Chairman 2012-2013

Robotics Technology Park – Executive Board (2014-2015 – Reappointed by Governor Robert Bentley February 2014)

CARCAM - NSF External Review Board (National Visiting Committee) - (2011-Present)

University Service Activities

Advisor, Alpha Pi Mu - UAH Student Chapter (1993-1996)

Board Member, Tau Beta Pi - UAH Student Chapter

Member, Computer Resources Committee - College of Engineering (1991-1997)

Chair, Computer Resources Committee – College of Engineering (1998-2000)

Member, Curriculum Committee - College of Engineering (1994-1996)

Member, Graduate Council (1997-2001)

Member, Faculty Senate (2000-2002)

Member, UA System – Distance Learning Task Force (2003)

Member, College of Engineering Promotion and Tenure Committee (2003, 2004, 2007, 2013)

Member, SACS Educational Programs Subcommittee (2004)

Member, University Review Board (2006)

Member, Planning Committee, College of Engineering (1999-2000)

Member, Instruction and Advising Committee - College of Engineering (1992-1993)
Member Dean's Scholarship Interview Committee (2011-2012)
Phi Kappa Phi – UAHuntsville Chapter
 President-Elect (2010-2011 & 2011-2012), President, (2012-2013)
Education Coordinator for UAH with MIT's Lean Advancement Initiative Education Network (2012-2013)
Chair, ISEEM Department Chair Search Committee (2012-2013)
Member, University Strategic Planning Task Force #11 (2012-2013)
Coordinator, College of Engineering Strategic Planning Committee (2012-2013)
Member, General Education Requirements Review Committee (2013-2014)
Advisor, Stella's Voice, UAH Chapter (2012-2015)
Advisor, HopeMore, UAH Chapter (2015-Present)
Member, UAH Department of Philosophy Self Study – External Review Committee (Spring 2014)
Member, Charge Foundations Task Force (2014-2015) – Chair Matrix Subcommittee
Chair, ISEEM Department – Eminent Scholar of Systems Engineering Search Committee (2014-2015)
Chair, University Review Board (2013-2015)

REGIONAL AND NATIONAL AWARDS

1983 Graduate Scholarship - Mid-Missouri Chapter of IIE
1988-89 General Mills Honor Scholarship - Material Handling Foundation
1989-90 MTM Association for Standards and Research Fellowship - IIE
1990 Alpha Pi Mu Scholarship
1992 NASA/ASEE Summer Faculty Fellowship - Marshall Space Flight Center
1993 Distinguished Service Award - IIE Chapter 69
1993 NASA/ASEE Summer Faculty Fellowship - Marshall Space Flight Center
2001 ASEM Franklin Woodbury Special Service Award
2006 ASEM Eschenbach Award – Best Paper *Engineering Management Journal*
2006 ASEM Meritorius Service Award
2006 UAH College of Engineering Outstanding Professor Award
2007 ASEM Bernard R. Sarchet Award
2007 Elected Fellow of ASEM
2009 ASEM Meritorius Service Award
2014 National Academy of Engineers – Frontiers of Engineering Education Symposium
2014/2015 ASEM Fellows, Chair

PROFESSIONAL AFFILIATIONS

American Society for Engineering Management - Fellow
American Society for Engineering Education - Member
American Society for Quality – Senior Member
Institute of Industrial Engineers – Senior Member
Order of the Engineer
Alpha Pi Mu
Epsilon Mu Eta
Phi Kappa Phi
Tau Beta Pi