

## **RESUME**

### **Dawn R. Utley**

Associate Professor  
Technology Hall, N136  
Industrial and Systems Engineering and Engineering Management  
University of Alabama in Huntsville 35899  
Phone: 256-824-6075 Fax: 256-824-6608  
dawn.utley@uah.edu

### **PROFESSIONAL CERTIFICATION**

Professional Engineer, State of Tennessee, License Number 016705

### **EDUCATION**

Ph.D., Industrial and Systems Engineering (Major: Engineering Management), The University of Alabama in Huntsville, 1995.

M.S., Industrial Engineering, (Major: Engineering Management), The University of Tennessee, 1988.

B.S., Civil Engineering, Tennessee Technological University, 1979.

### **PROFESSIONAL AFFILIATIONS**

American Society for Engineering Management  
Institute of Industrial Engineers  
Order of the Engineer

### **HONORS AND AWARDS**

Alpha Lambda Delta Honor Society  
Chi Epsilon Honor Society  
Kappa Mu Epsilon Honor Society  
Mortar Board Honor Society  
National Dean's List  
Order of Omega Honor Society  
Phi Kappa Phi Honor Society  
Tau Beta Pi Honor Society  
Epsilon Mu Eta Honor Society (Engineering Management) – Founding Member  
1996 Distinguished Service Award, IIE, Huntsville Chapter 69  
1996 SGA Outstanding Instructor for UAH College of Engineering  
1998 Outstanding Assistant Professor for UAH College of Engineering  
2001 Engineer of the Year, IIE, Huntsville Chapter 69  
2001 Franklin B. Woodbury Special Services Award, American Society of Engineering Management (ASEM)  
2002 SGA Outstanding Instructor for UAH College of Engineering  
2006 UAH Foundation Award for Distinguished Teaching  
2006 Bernard Sarchet Award, ASEM  
2006 ASEM Fellow Member  
2011 Outstanding Senior Faculty Award, College of Engineering  
2011 Outstanding Leadership and Service Award, College of Engineering  
2013 Recognized as one of students “Favorite Professors” by Charger Village

## **ACADEMIC EXPERIENCE**

Associate Professor, The Department of Industrial and Systems Engineering and Engineering Management,  
The University of Alabama in Huntsville, August 2002 to Present (tenured).

Assistant Professor, The Department of Industrial and Systems Engineering and Engineering Management,  
The University of Alabama in Huntsville, August 1995 to 2002.

Lecturer, The Department of Industrial and Systems Engineering and Engineering Management, The University  
of Alabama in Huntsville, August 1992 to 1995.

Engineering Management Program Specialist, Industrial Engineering Department, The University of Tennessee  
Space Institute, March 1989 to August 1992.

Adjunct Instructor, Motlow State Community College, January 1990- June 1992.

Graduate Assistant, Industrial Engineering Department, The University of Tennessee Space Institute, October  
1986 to March 1989.

## **INDUSTRIAL EXPERIENCE**

Civil Engineer, Tennessee Valley Authority, Knoxville, Tennessee, June 1979 to March 1985

Engineering Aide Step Program, Tennessee Valley Authority, Knoxville, Tennessee, June 1976-Sept 1976

## **CONSULTING EXPERIENCE**

Schneider Services International AEDC – Organizational Analysis; Training development

Gresham, Smith and Partners – Organization and Management Analysis

Ingram Materials – Developed maintenance schedule and tracking capabilities for M/H equipment

PEO Tactical Missiles Program Office, US Army – Developed and taught team training short course

NASA, Marshall Space Flight Center – Developed and implemented a measurement plan for IPTs

## **RESEARCH CONTRACTS AND GRANTS**

1. U.S. Army Missile Command, Huntsville, AL, Technological Systems Assessment, Spring and Summer 1994, \$15,000, (with G. Maddux and J.D. Westbrook) – Co-PI.
2. UAH Research Mini-Grant Program, "Identification and Prioritization of Training Needs to Support Implementation of Concurrent Engineering", 1996/1997, \$2,380 (with P.J. Componation) – Co-PI.
3. PPG, Huntsville, Alabama, Manufacturing Methods Initiative Project Analysis of Facility Layout and Design, Spring 1997, \$38,000 (with P.J. Componation) – Co-PI.
4. U.S. Army Space and Missile Defense Command, "An Organizational Effectiveness Evaluation of the Missile Defense and Space Technology Center's Sensors Directorate Based Upon the Fundamentals of the 1999 Army Performance Improvement Criteria," \$99,996 (with D.D. Tippet) – Co-PI.
5. U.S. Army Aviation and Missile Command, Engineering Directorate, Huntsville, AL, "Research and Analysis of Technology Trends, Engineering Management and Statistical Methods," Summer 2000, \$9,976.56, (with P. Componation, and P. Farrington) PI.
6. U.S. Army Aviation and Missile Command, Engineering Directorate, Huntsville, AL, "Research and Assessment of Quality Engineering Tools, Engineering Management Communication, and Systems Engineering Tools," Fall 2000, \$39,945.84, (with P. Componation, S. Gholston, and P. Farrington) – Co-PI.
7. U.S. Army Aviation and Missile Command, Production Engineering Division, Huntsville, AL. "Strategic Planning and Capability Assessment," Summer 2001, \$34,906.15 – PI.
8. NASA, Marshall Space Flight Center, "NASA Advanced Engineering Environment Metric Assessment," 11/19/2001 to 9/8/2002, \$220,000, (with L. Etzkorn) – PI.

9. U.S. Army Aviation and Missile Command , “Systems Engineering of Unmanned Hybrid Vehicle,” Mar 2002 - Sept 2002, \$15,657, (with J. Aunon, C. Corsetti, P.J. Componation, R. Frederick, D. Berkowitz, P.A. Farrington, D.B. Landrum, R.L. Norman, B. E. Wells) – Co-PI.
10. U.S. Army Aviation and Missile Command , “Systems Engineering of Unmanned Hybrid Vehicle,” Mar 2002 - Sept 2002, \$44,863, (with J. Aunon, C. Corsetti, P.J. Componation, R. Frederick, D. Berkowitz, P.A. Farrington, D.B. Landrum, R.L. Norman, B. E. Wells) – Co-PI.
11. DOD/Army/SMDC, Technology Center, “Engineering and Project Management Short Course,” 5/3/2002 – 9/30/2002, \$51,724, (with D. Tippet) – Co-PI.
12. DOD/Army/SMDC, Technology Center, “Engineering and Project Management Short Course,” 5/3/2002 – 9/30/2002, \$26,276, (with D. Tippet) – Co-PI.
13. NASA, Marshal Space Flight Center, “NASA Advanced Engineering Environment Metric Assessment,” 03/2003 \$100,000, (with L. Etzkorn) PI.
14. NASA, Goddard, “Grant for Metric Tool Development/ Semantic Metrics for Object-Oriented Design,” 1/3/2003 through 12/31/2005, \$326,153 (with L. Etzkorn, P. Farrington, G. Cox, S. Gholston) – Co-PI.
15. DOD/Army/SMDC, Technology Center, “Engineering and Project Management Short Course,” 5/3/2003 – 9/30/2003, \$51,724, (with D. Tippet) – Co-PI.
16. DOD/Army/AMCOM, “Team Progress and Effectiveness: Assessment & Evaluation Task,” 7/15/2003 – 4/30/2004, \$58,510, (with S. Carpenter) PI.
17. DOD/Army/SMDC, Technology Center, “Engineering and Project Management Short Course,” 8/01/2004 – 9/30/2005, \$42,000, (with D. Tippet) – Co-PI.
18. F/NAS/MSFC/IPA, 2/2004 – 9/2005, \$99,762 (with P. Componation) PI.
19. DOD/Army/SMDC, Technology Center, “Engineering and Project Management Short Course,” 9/2005 – 4/2006, \$50,000, (with D. Tippet) – Co-PI.
20. UTCA “Identification and Management of Functionally Impaired Drivers,” 7/2005 – 5/2006, \$45,000 (with K. Leonard and J. Edwards) – Co-PI.
21. SBIR OSD-CR6: A Computer-based Interactive Simulation to Support the Training and Certification of Multi-organization Teams – for Joint Forces Command via MYMIC, LLC, 3/06-8-06, \$12,142 (with PJ Benfield) – Co-PI.
22. Systems Engineering & Integration Effectiveness – NASA MSFC, 7/06-9/07, \$240,000 (with P. Componation, P. Farrington, and A. Youngblood) – Co-PI.
23. ALDOT/Protege Program for ALDOT, 5/12-9/12, \$178,788 (with S. Gholston and M. Anderson) – Co-PI.
24. URII Cognitive Aspects of Team Development – UAH – 5/12-5/13, \$ 23,402 (with S. Carpenter) – Co-PI.
25. ALDoT/ Mentor-Protégé Program, 10/12-9/13, \$224,312 (with S. Gholston) – Co-PI.
26. “F/NASA/MSFC/14.1/MSFC Aerospace and Systems Engineering Program,” NASA/MSFC, April 1, 2011 to March 31, 2016, \$2,284,350 (with P.A. Farrington – PI, L. Burns Co-I) \$659,600 received since April 1, 2013 – Mar 30, 2014; \$600,000 received since April 1 2014- Mar 30 2015, Co-PI.
27. “AMRDEC Programs Analysis and Evaluation Team,” Sept 2013, \$17,847.20, PI.
28. “AMRDEC Programs Analysis and Evaluation Team- Project 2,” May 2014, \$49,975, PI
29. “AL-DoT Mentor-Protégé Program,” July 2014, \$271,000, CoPI
30. “AMRDEC Programs Analysis and Evaluation Team- Project 3,” (Through Torch) March 2015, \$88,476, PI

Total amount: \$5,412,141

## **SUBMITTED PROPOSALS**

1. Cognitive Aspects of Team Development: Mental Model and Transactive Memory Development and Convergence, NSF 2011-674, \$272,468 (with S. Carpenter, H. Delugach, L. Etzkorn) – rejected
2. SHF:Small:Collaborative Research: Finding Change- and Error-Prone Local Regions at Four Levels of Software Artifacts in Object-Oriented Systems, NSF 2011-138, \$359,507 (with I. Etzkorn, S. Gholston, and W. Li) - rejected.
3. Small Business Teaming Proposal Technical, Office of Government Contracting, \$2,440,791 (with S. Gholston and M. Anderson) Co-PI, 4/11/2011- rejected.
4. Fiscal Year 2011 Solicitation for DBE Supportive Services Program Proposal, DOT, \$396,854 (with S. Gholston and M. Anderson) Co-PI, 2/11/2011, - rejected.
5. Protege Program for ALDOT Certified DBE, ALDOT, \$178,788 (with S. Gholston and M. Anderson) Co-PI, 4/12, awarded.
6. URII Cognitive Aspects of Team Development – UAH – 5/12-5/13, \$ 23,402 (with S. Carpenter) – Co-PI awarded.
7. ALDoT/ Mentor-Protégé Program, 10/12-9/13, \$224,312 (with S. Gholston) – Co-PI - awarded
8. NASA/MSFC/SLS Aerospace and Systems Engineering Evaluation and Research – NASA – 4/11 –3/16, \$1,324,750 (with P. Farrington and L. Burns) – Co-PI - awarded
9. ALDoT/ Supplemental Mentor-Protégé Program, 10/12, \$167140, (with S. Gholston) – awarded
10. CIF Creating a Lean Six Sigma Training Program for Immediate Delivery of Health Care Community, \$49,148, (with S. Gholston and P. Hayes) – rejected
11. AMRDEC Programs Analysis and Evaluation Team, Sept 2013, \$17,847.20, PI, awarded
12. ALDoT/Mentor-Protégé Program, 2014, \$274,719, (with Sam Gholston) – Co-PI, awarded.
13. ALDoT/Mentor-Protégé Program, 2014, \$184,875, (with Sam Gholston) – Co-PI, rejected.
14. AMRDEC Program Analysis and Evaluation Team, March 2014, 49,974.90, PI, awarded.

## **PUBLICATIONS**

### **REFEREED PUBLICATIONS**

1. "TQM - The Effect of Culture on Implementation", Vol. 7, No. 2, June, 1995, *Engineering Management Journal*, (with J.D. Westbrook).
2. "The Relationship Between Herzberg's Two-Factor Theory and Quality Improvement Implementation", Vol. 9, No. 3, September, 1997, *Engineering Management Journal*, (with J.D.Westbrook, and S. Turner).
3. "Project Managers and Functional Managers: A Case Study of Job Satisfaction in a Matrix Organization", Vol. 29, No. 3, September, 1998, *Project Management Journal*, (with S. Turner and J.D. Westbrook).
4. "What Are We Teaching Our Engineering Managers?" Vol. 11, No. 1, March, 1999, *Engineering Management Journal*, (with P. Hicks and J.D.Westbrook).
5. "Prioritizing Components of Concurrent Engineering To Support New Product Development," October 1999, *Systems Engineering*, (with P. Compton and R. Armacost) r.
6. "Management Concepts in Use – A 12-Year Perspective," Vol. 12, No. 3, September 2000, *Engineering Management Journal*, (with G. Flores).
7. "The Power of Organizational Culture and the Successful Implementation of Information Technology," Vol.13, No. 2, June 2001, *Engineering Management Journal*, (with G. Harper).
8. "Using Risk Reduction to Measure Team Performance," Vol. 13, No. 4, December 2001, *Engineering Management Journal*, (with P. Compton and J. Swain).
9. "A Comparison of Cohesion Metrics for Object-Oriented Systems," Vol. 46, Issue 10, August, 2004 *Information and Software Technology*, pg. 677-687, (with L.H. Etzkorn, S.E. Gholston, J.L. Fortune, C.E. Stein, D.R. Utley, P.A. Farrington, and G.W. Cox).

10. "Exploring the Relationship Between Cohesion and Complexity," *Journal of Computer Science*, 1(2): 137-144, 2005 (with C.E. Stein, G.W. Cox, L.H. Etzkorn, S.E. Gholston, S. Virani, P.A. Farrington, and J.L. Fortune).
11. "Team Progress Checksheet: A Study Continuation," *Engineering Management Journal*, Vol. 17, No. 2, p 21-27, June, 2005 (with J. Fortune).
12. "Empirical Validation of the RCDC and RCDE Semantic Complexity Metrics for Object-Oriented Software," *Journal of Computing and Information Technology*, Vol. 15, No. 2, 2007, pp.1-10 (with G. Cox., S. Gholston, L. Etzkorn, C. Stein, and J. Fortune) .
13. "A Knowledge Modeling Approach to Evaluating Student Essays in Engineering Courses," *Journal of Engineering Education*, Vol. 96, No. 3, July 2007, pp. 227-238 (with S. Carpenter, H. Delugach, L. Etzkorn, P. Farrington, J. Fortune, and S. Virani) .
14. "Semantic Software Metrics Computed from Natural Language Design Specifications," *IET Software* (formerly IEE Proceedings Software), Vol. 2, No. 1, February 2008, pp. 17-26 (with C. Stein, S. Lukins, L. Etzkorn, S. Gholston, P. Farrington, J. Fortune, S. Virani).
15. "A Preliminary Assessment of the Relationships Between Project Success, System Engineering and Team Organization," publication pending in *Engineering Management Journal*, 2008, pp. 44-50 (with P. Compton, A. Youngblood, and P. Farrington).
16. "Semantic Metrics: Metrics Based on Semantic Aspects of Software," *Applied Artificial Intelligence*, Vol. 23, Issue 1, January 2009, pp.44-77 (with C. Stein, L. Etzkorn, S. Gholston, P. Farrington, G. Cox, J. Fortune).
17. "Integrated Product Teams at The University of Alabama in Huntsville," book chapter in *Higher Education, Emerging Technologies, and Community Partnerships: Concepts, Models and Practices*, 2011, Information Science Reference (an imprint of IGI Global), Hershey, PA, (with M. Turner, P.J. Benfield, C. McPherson).
18. "How Instructional Format (Voice and Modality) Influences Subsequent Performance: An Empirical Study," *International Journal of Teaching and Learning in Higher Education*, 2013, Volume 25, Number 1, pp. 59-65.

## Working Documents

19. "Differentiating Between Teams and Working Groups: A Psychometrically Sound Instrument," for *Small Group Research*, (with Stephanie Reitmeier and Sandra Carpenter)
20. "Ambiguity Aversion in Engineers," for *Decision Analysis*, (with Chris Brown)
21. "Status Quo Bias in Engineers," for *Journal of Risk and Uncertainty*, (with Chris Brown)
22. "Developing the Lifetime Leadership Inventory: A Management Perspective on Understanding Leadership Development Experiences," for *Engineering Management Journal*, (with W. Schell)
23. "What Makes A Transformational Leader: Understanding the Development Experiences of Transformational Leaders," for *Engineering Management Journal*, (with W. Schell)
24. "Applying Mental Models to Engineering Management: Utility and Measurement Methodology," for *Engineering Management Journal*, (with Sandra Carpenter).

## CONFERENCE PAPERS

1. "A Survey of Management Concepts in Technical Organizations," *Proceedings of the Ninth Annual Conference of American Society For Engineering Management*, October 1988, (with J.D. Westbrook).
2. "The Payoffs in Educating Engineers in Management Theory," *Proceedings of the Sixth Annual Technical and Business Exhibition and Symposium*, May 1990.
3. "Academic Issues in Distance Learning," *Proceedings of the 1993 ASEE Southeastern Regional Conference*, April 1993, (with J.D. Westbrook).
4. "The University's Role in Transferring Federal Technology," *Technology Transfer Society Annual Conference*, June 1996, (with K. Harwell).

5. "Industry-University-State-Laboratory Technology Transfer: Evolution of the Chamber of Commerce Model," *1996 Technology Transfer Society Annual Conference*, June 1996, (with M.W. Adams, J.A. Cranston, K.E. Harwell, J.M. Johnston, B.J. Schroer, M.S. Spann, and H. Charette).
6. "Theories-in-Use versus Espoused Theories," *1996 American Society For Engineering Management Annual Conference*, October 1996, (with C. Bell-Roundtree, R. Lathon, and J.D. Westbrook).
7. "A Generic Simulator for Modeling Manufacturing Modules," *1996 Winter Simulation Conference*, December 1996, (with B.J. Schroer, P.A. Farrington, and J.J. Swain).
8. "A Cluster Analysis Approach to Support Team Structuring in Concurrent Engineering," *The 6th Annual Industrial Engineering Research Conference*, May 1997, (with P.J. Compton and J.J. Swain).
9. "Design Tool for Assessing Manufacturing and Environmental Impact," *Proceedings of the 2<sup>nd</sup> International Conference on Engineering Design and Automation*, August 1998, (with S.L. Messimer, D. Russell, and D. Rochowiack).
10. "The Trials and Triumphs of an AGV/ASRS Implementation: A Case Study," *Proceedings of the 2<sup>nd</sup> International Conference on Engineering Design and Automation*, August 1998, (with B. Peterson).
11. "The Use of Management Concepts in Technical Organizations - An Analysis of 12-Year Trends," *Proceedings of the 1998 National Conference of the American Society of Engineering Management*, October 1998, (with G. Flores).
12. "What Are We Teaching Our Engineering Managers?" *Proceedings of the 1998 National Conference of the American Society of Engineering Management*, October 1998, (with P.C. Hicks, and J.D. Westbrook).
13. "Assessing the Training of Technical Professionals Moving into Management," *1999 ASEE Annual Conference Proceedings*, June 1999, (with M. Adams, M. Spann, and P.A. Farrington).
14. "A Method for the Equitable Distribution of Bonuses in Project Teams Through the Use of Enterprise Resource Planning Software," *1999 ASEM National Conference Proceedings*, October 21-23, 1999, (with R. Howard).
15. "Assessing Organization Culture as a Function of Information Technology Success," *1999 ASEM National Conference Proceedings*, October 21-23, 1999, (with G. Harper).
16. "A Case Study in Using EM Concepts to Streamline Government Contracting Programs within the Corps of Engineers," *1999 ASEM National Conference Proceedings*, October 21-23, 1999, (with B. Starling).
17. "Organizational Effects on the Near Term Technology Infusion Process," *2000 ASEM National Conference Proceedings*, October 4-7, 2000, (with A. Armstrong, J. Westbrook, and P. Farrington).
18. "Survey of Worker Perception of Quality Systems Implementation in High Technology Service Organizations," *2000 ASEM National Conference Proceedings*, October 4 -7, 2000, (with S. Gholston and P. Farrington).
19. "A Comparison of Worker Perception of Quality Systems Implementation in Service and Manufacturing Organizations," *The International Conference on Industry, Engineering, and Management Systems Proceedings*, March 5-7, 2001, (with S. Gholston and P. Farrington).
20. "A Study of Teamwork in a Government Agency," *2001 ASEM National Conference Proceedings*, October 11-13, 2001, peer reviewed, (with W. Schneider).
21. "An Approach for Assessing Intellectual Capital in a Government Organization," *2001 ASEM National Conference Proceedings*, October 11- 13, 2001, peer reviewed, (with L. Cook).
22. "Too Close to the Customer: A Study of Remote Office Implementation," *2001 ASEM National Conference Proceedings*, October 11- 13, 2001, peer reviewed, (with B. Wilson).
23. "Using an Undergraduate Design Course as an Experimental Environment for Team Development Research," *Proceedings from the 2002 American Society for Engineering Management National Conference*, Oct. 2002, peer reviewed, (with P.A. Farrington, and R.A. Frederick).

24. "Staff Readiness in a Short Term Integrated Product Team," *Proceedings from the 2002 American Society for Engineering Management National Conference*, Oct. 2002, peer reviewed, (with J.G. Fortune).
25. "Comparison of the Team Attributes in a Controlled Environment," *Proceedings from the 2002 American Society for Engineering Management National Conference*, Oct. 2002, peer reviewed, (with A. Armstrong, R. Henriksen, R. Stallworth, P.A. Farrington).
26. "Team Progress – Can It Be Quantified and Tracked?" *Proceedings from the 2002 American Society for Engineering Management National Conference*, Oct. 2002, peer reviewed, (with P.J. Benfield, P.A. Farrington).
27. "Situational Motivation: What Makes People Work in a Changing Environment," *Proceedings from the 2002 American Society for Engineering Management National Conference*, Oct. 2002, peer reviewed, (with M. West).
28. "International Product Teams for Aerospace System Design," *38th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit*, Indianapolis, IN, July 2002 (with R. Frederick, Jr., M. Pawlak, E. Wells, C. Corsetti, and D. Landrum).
29. "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*, Oct. 2003, peer reviewed, (with C.A. Ise and P.A. Farrington).
30. "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*, Oct. 2003, peer reviewed, (with J. Fortune and P.A. Farrington).
31. "Family Role Characteristics within High Performance Technology Teams," *Proceedings from the 2003 American Society for Engineering Management National Conference*, Oct. 2003, peer reviewed, (with J.G. Sonnenberg).
32. "Computing Software Metrics from Design Documents," *Proceedings of the 42<sup>nd</sup> Annual ACM Southeast Conference*, Huntsville, Alabama, April 2-3, 2004, (with C. Stein, L. Etzkorn, D. Utley, G. Cox, J. Fortune, and S. Gholston).
33. "A New Suite of Semantic Metrics for Object-Oriented Software," *1st International Workshop on Software Audit and Metrics*, Porto, Portugal, April 13-14, 2004, (with C. Stein, L. Etzkorn, G. Cox, P. Farrington, S. Gholston, and J. Fortune).
34. "Examining a Semantic Metrics Suite for Object-Oriented Design," *Proceedings of the 4<sup>th</sup> Annual NASA Office of Safety and Mission Assurance Software Assurance Symposium*, OSMA SAS 2004, Morgantown, West Virginia, July 20-22, 2004, (with L. Etzkorn, C. Stein, G. Cox, S. Gholston, P. Farrington).
35. "Team Progress Checksheet: A Study Continuation," *Proceedings from the 2004 American Society for Engineering Management National Conference*, Oct. 2004, peer reviewed, (with J. Fortune).
36. "Teams in Action: A Quantitative Study of Integrated Product Teams – Year Five," *Proceedings from the 2004 American Society for Engineering Management National Conference*, Oct. 2004, peer reviewed, (with P. Knight, M. West, C Wilson, N. Wincey).
37. "Incorporating Lean Enterprise Techniques into Strategy Development: An Integrated Approach," *Proceedings from the 2004 American Society for Engineering Management National Conference*, Oct. 2004, peer reviewed, (with A. Ponder).
38. "Modeling Teams: An Investigation into Teaming Theories and Their Application," *Proceedings from the 2005 American Society for Engineering Management National Conference*, Oct. 2005, Virginia Beach, VA, peer reviewed, (with J. Fortune and P.J. Benfield).
39. "Describing Team Development in Science and Engineering Organizations," *Proceedings from the 2005 American Society for Engineering Management National Conference*, Oct. 2005, Virginia Beach, VA, peer reviewed, (with P.J. Benfield).

40. "Teams in Action: A Team Assessment Using Katzenbach and Smith's Theory on Integrated Product Teams," *Proceedings from the 2005 American Society for Engineering Management National Conference*, Oct. 2005, Virginia Beach, VA, peer reviewed, (with S. Carlisle, W. Christopher, N. Henson, C. Robinson).
41. "Teams in Action Year Six: A Quantitative Study of Integrated Product Teams with Respect to the Team Theory of Larson and LaFasto," *Proceedings from the 2005 American Society for Engineering Management National Conference*, Oct. 2005, Virginia Beach, VA, peer reviewed, (with L. Fraser, S. Hutchins, D. Mitchell, B. Morris, and S. Shetty).
42. "Research Status: Relationship Between Manager Innovativeness and Self-Perceived Performance of Knowledge Worker Teams," *Proceedings from the 2005 American Society for Engineering Management National Conference*, Oct. 2005, Virginia Beach, VA, peer reviewed, (with R. Henriksen).
43. "Findings: Manager Innovativeness and Performance of Knowledge Worker Teams," *Proceedings from the 2006 American Society for Engineering Management National Conference*, Oct. 2006, Huntsville, AL, peer reviewed, (with R. Henriksen).
44. "Predicting the IPT Design Winner by Investigating Comparative Team Performance Relative to Teaming Theories," *Proceedings from the 2006 American Society for Engineering Management National Conference*, Oct. 2006, Huntsville, AL, peer reviewed (with E. Roper, S Shetty, and T. Maddox).
45. "A Study of Teaming Theories Using Observational Data to Predict Increased Performance," *Proceedings from the 2006 American Society for Engineering Management National Conference*, Oct. 2006, Huntsville, AL, peer reviewed, (with J. Hill, S. Koppella, and D. Lynn).
46. "Factors Influencing the Selection of the Systems Integration Organizational Model Type for Planning & Implementing Government High-Technology Programs," *Proceedings from the 2006 American Society for Engineering Management National Conference*, Oct. 2006, Huntsville, AL, peer reviewed, (with L. Thomas).
47. "A Comprehensive Examination of Linear Progressive and Cyclical Team Development Models," *Proceedings from the IIE Annual Conference and Expo 2007*, May 2007, Nashville, TN (with J. Ingram and A. Youngblood).
48. "A Proposed Method for Developing a Team Performance Measurement System," *Proceedings from the IIE Annual Conference and Expo 2007*, May 2007, Nashville, TN (with E. Roper and A. Youngblood).
49. "Corporate Strategy – Lessons for the Engineering Manager from Strategy Assessments in Global Organizations," *Proceedings from the IIE Annual Conference and Expo 2007*, May 2007, Nashville, TN (with W. Schell and D. McCarty).
50. "Integrating Lean and Six Sigma into the Industrial Engineering Curriculum: An Engineering Management Perspective," *Proceedings from the IIE Annual Conference and Expo 2007*, May 2007, Nashville, TN (with P. Farrington and G. Harris).
51. "The Team Phase Change Theory – A New Team Development Theory," *Proceedings from the IIE Annual Conference and Expo 2007*, May 2007, Nashville, TN (with P.J. Benfield).
52. "Predicting Performance of a Rocket Motor Design Team Using Teaming Theory," *Proceedings from the 2007 American Society for Engineering Management National Conference*, Nov. 2007, Chattanooga, TN, peer reviewed, (with S. Brown, R. Laney, D. McCarty, and K. Sharfi).
53. "Using Teaming Theory to Predict Performance of a Lunar Rover Design Team," *Proceedings from the 2007 American Society for Engineering Management National Conference*, Nov. 2007, Chattanooga, TN, peer reviewed, (with H. Phillips, R. Porter, Tara Polsgrove, and R. Laney).
54. "Using the Wheelan Group Development Model to Assess an Unmanned Lunar Rover IPT," *Proceedings from the 2007 American Society for Engineering Management National Conference*, Nov. 2007, Chattanooga, TN, peer reviewed, (with C. Verlinden, T. Collier, and M. Durham).



55. "Assessing the Relationships between Project Success, System Engineering and Team Organization," *Proceedings from the 2007 American Society for Engineering Management National Conference*, Nov. 2007, Chattanooga, TN, peer reviewed, (with P. Componation, A. Youngblood, P. Farrington, and P.J. Benfield).
56. "Characteristic Differences between Engineering Working Groups and Teams," *Proceedings of the 2008 Industrial Engineering Research Conference*, May 17-21, Vancouver, British Columbia, Canada (with M.P.J. Benfield and S. Brown).
57. "Studying Team Shared Mental Models," *Proceedings of the 3<sup>rd</sup> ACM International Conference on the Pragmatic Web (ICPW '08)*, Uppsala, Sweden, Sept. 29-30, 2008, pp. 39-46 (S. Carpenter, H. Delugach, L. Etzkorn, J. Fortune, P. Farrington, and S. Virani)
58. "Telecommuting: The Good, The Bad, and The Ugly," *Proceedings from the 2008 American Society for Engineering Management National Conference*, Nov. 2008, West Point, NY, peer reviewed, (with A. Kissell).
59. "Predicting Performance of an Unmanned Lunar Lander Integrated Product Team Using Teaming Theory," *Proceedings from the 2008 American Society for Engineering Management National Conference*, Nov. 2008, West Point, NY, peer reviewed, (with T. Maddox, K. Glaremin, S. Shetty, and S. Brown).
60. "Group Development: A Review of Cyclical Models," *Proceedings from the 2008 American Society for Engineering Management National Conference*, Nov. 2008, West Point, NY, peer reviewed, (with S. Brown).
61. "Investigation of Domain Effects on Software," *Proceedings of the 47<sup>th</sup> Annual ACM Southeast Conference*, Clemson, SC, March 19-21, 2009 (with S. Carpenter, H. Delugach, L. Etzkorn, J. Fortune, P. Farrington, and S. Virani)
62. "Working Group or Team: Characteristic Differences," *Proceedings of the 2009 Industrial Engineering Research Conference*, May 30-June 3, 2009, Miami, FL, (with M.P.J. Benfield and S. Brown).
63. "The Coverage of Lean Principles in Higher Education Curricula," *Proceedings from the 2009 American Society for Engineering Management National Conference*, Oct 2009, Springfield, MO, (with L. Blanchard, G. Harris, and P. Farrington).
64. "Predicting Performance of a Spacecraft Development Team Using Teaming Theory," *Proceedings from the 2009 American Society for Engineering Management National Conference*, Oct 2009, Springfield, MO, (with P. Jemison, M. La Duca, and B. Woodruff).
65. "Assessing Group Development Characteristics in Engineering Student Group," *Proceedings from the 2009 American Society for Engineering Management National Conference*, Oct 2009, Springfield, MO, (with S. Brown).
66. "Assessing an Organization's Transition to Lean," *Proceedings of the 2010 International Conference on Industry, Engineering, and Management Systems*, March 8-10, 2010, Cocoa Beach, Florida, (with S. Shetty, P. Componation, S. Gholston).
67. "Assessing the extent of Lean Implementation in an Organization," *Proceedings of the 2010 Industrial Engineering Research Conference*, June 5-9, 2010, Cancun, Mexico, (with S. Shetty, P. Componation, S. Gholston).
68. "The Effect of Shared Mental Models on Team Performance: The Devil IS in the Details," *Proceedings of the 2010 Industrial Engineering Research Conference*, June 5-9, 2010, Cancun, Mexico, (with S. Carpenter, H. Delugach, L. Etzkorn, J. Fortune, and S. Virani).
69. "Modeling the Effect of Conative and Affective Psychological Traits on the Development of Occupational Expertise," *Proceedings from the 2010 American Society for Engineering Management National Conference*, Oct 2010, Rogers, AR, (with E. Sholes).
70. "The ASEM Engineering Management Certificate Program, Certification and the Body of Knowledge," *Proceedings from the 2010 American Society for Engineering Management National Conference*, Oct 2010, Rogers, AR, (with R. Grubb, D. Merino, G. Sedrick, and J. Westbrook).

71. "The Relationship between Group Development Behavior Patterns of Multidisciplinary Engineering Teams and Group Success," *Proceedings from the 2010 American Society for Engineering Management National Conference*, Oct 2010, Rogers, AR, (with T. Nance).
72. "Assessing Systems Engineering Procedures Impact on Project Success," *Proceedings from the 2010 American Society for Engineering Management National Conference*, Oct 2010, Rogers, AR, (with P. Componation, P. Farrington, and P. Benfield).
73. "Modeling the Effects of Conative and Affective Psychological Traits on the Development of Occupational Expertise," *Proceedings from IEEE/AIAA Aerospace Conference 2011*, March 2011, Big Sky, MT, (with Eric Sholes).
74. "Telecommuting Team Members and Their Effects on the Team," *Proceedings from the 2012 American Society for Engineering Management National Conference*, Oct 2012, Virginia Beach, VA, (with A. Kissell).
75. "Differentiating Between Teams and Working Groups: A Psychometrically Sound Instrument," *INGroup Conference 2013*, Atlanta, GA, (with S. Reitmeier and S. Carpenter).
76. "The Importance of Organizational Commitment to Knowledge Sharing among Engineers," *Proceedings from the 2013 American Society for Engineering Management National Conference*, Duluth, MN, (with D. Howell).
77. "Enhancing Teamwork and Team Performance: Considering Cognitive Characteristics of Team Development," *Proceedings of the 2014 IEMS Conference*, Cocoa Beach, FL (with S. Carpenter and S. Gholston).
78. "Freely Available Software for Eliciting and Comparing Team Mental Models: The Team Mental Model Acquisition Tool (MMAT), INGroup Conference July 2014, Raleigh, NC, (with H. Delugach, S. Carpenter and L. Etzkorn).
- 79.

## RESEARCH REPORTS

1. "MICOM Organization Survey," MICOM, Huntsville, Alabama, September 1995, (with G. Maddux, K. Crowe and J. Westbrook).
2. "Prioritizing Components of Successful Engineering Programs," UAH, Huntsville, Alabama, October 1996, (with P. Componation).
3. "Manufacturing Methods Initiative Project Analysis of Facility Layout and Design – Final Report," PPG Industries, Inc. Huntsville, Alabama, June 9, 1997, (with P.J. Componation).
4. "Engineering Management Assessment Report for the Space and Missile Defense Command, Sensors Directorate," Huntsville, Alabama, June 11, 2001, (with D.D. Tippet).
5. "Army Report: Team Progress & Effectiveness Assessment & Evaluation Task," Huntsville, Alabama, February, 2006.
6. "A Computer-based Capability to Support the Training and Certification of Multi Organization Team," MYMIC, August 2006, (with P.J. Benfield).
7. "Management of Functionally Impaired Drivers," University Transportation Center for Alabama, December, 2006 (with K. Leonard, J. Edwards).
8. "Effect of the Use of SE&I on Project 'Success'," NASA Marshall Space Flight Center, Huntsville, Alabama, 2006-2007 (with P. Componation (PI), P. Farrington, and A. Youngblood).
9. "Mentor/Protege Program Final Report for ALDOT," 12/12 (with S. Gholston and M. Anderson)
10. "NASA/MSFC SLS Aerospace and Systems Engineering 2012 Final Report, 9/12.
11. "Mentor/Protege Program Final Report for ALDOT, 12/13 (with S. Gholston)

12. "NASA/MSFC SLS Report on SLS Decision-Making and Communication Processes within the Context of Change Requests" Feb 2014 (with Karen Hicks).
13. "Report of Work Complete - AMRDEC Programs Analysis and Evaluation Team P1," August 2014

## **PRESENTATIONS**

1. "A Management Analysis of an Architect and Engineering Firm", Fifth Annual Technical and Business Exhibition and Symposium TABES 89, Huntsville, Alabama, May 17, 1989.
2. "How To Be Productive Using Total Quality Management", Seminar at The University of Tennessee Space Institute, Tullahoma, Tennessee, October, 1991.
3. "Distance Learning", IEEE Computer Fair, Huntsville, Alabama, February, 18, 1994, (with J.D. Westbrook).
4. "Organization Structure Effects on Productivity", ORNL Technical Woman's Luncheon, May 12, 1998.
5. "Engineering Management in Manufacturing," SME chapter meeting, Feb, 2000.
6. "Survey of Worker Perception of Quality Systems Implementation in Manufacturing Organizations," Industrial Engineering and Research Conference 2000, Cleveland, OH, May 22-24, 2000, (with S. Gholston and P. Farrington).
7. "Team Development Research Using an Undergraduate Design Course as a Laboratory Environment," 2003 American Society for Engineering Management National Conference, Oct. 2003.
8. "An Innovative Technique for Measuring Team Performance," presentation to the IERC, Atlanta, GA, May 2006.
9. "A Study of IPTs Based on the Wheelan Model of Group Development," presentation to the 2007 American Society for Engineering Management National Conference, Nov. 2007, Chattanooga, TN.
10. "Incorporating Lean Principles in a Freshman Introduction Course," Lean Educator Conference, Sept. 2011, Huntsville, AL.
11. Poster Session – INGroup Conference, July 2012, Chicago, IL

## **STUDENT ADVISING**

### **Ph.D. Committee Chair (21):**

1. George Harper, "Assessing Information Technology Success As A Function Of Organizational Culture," Spring 2000
2. Ronda Reigle, "Organizational Culture Assessment: Development of a Descriptive Test Instrument," Spring 2003
3. Pam Takada, "The Relationship between Organization Culture and Satisfaction of Knowledge Workers in Technology Driven Organizations," Fall 2003
4. Michael P.J. Benfield, "Determining the Ability of the Tuckman Group Development Model to Explain Group Development in a High-Technology Environment," Spring 2005
5. Julie Fortune, "The Team Success Questionnaire: A Valid and Reliable Assessment Tool," Spring 2005
6. Robert Henriksen, "Relationship between Manager Innovativeness and Self-perceived Performance of Knowledge Worker Team," Spring 2007

7. Shirley Vigil, "A Longitudinal Study of Multidisciplinary Design Teams Using Whelan's Integrated Model of Group Development," Spring 2008
8. Lisa Watson-Morgan, "An Investigation of the Relationship of Outcome Measures and Change Implementation: A Study of Work Group Performance, Organizational Activities, Implementation Attributes and Change Types," Summer 2008
9. Joette Sonnenberg, "Relationship of Technical Research and Development Team Success to Successful Family Functioning," Fall 2008
10. H. Leann Thomas, "Factors Influencing the Selection of the Systems Integration Organizational Model Type for Planning and Implementing Complex Government Projects," Spring 2009
11. William J. Schell, "What Makes a Transformational Leader: An Investigation into the Antecedent Experiences of Transformational Leaders," Spring 2010
12. Jason Gilliam, "Age and Generation Related Differences in the Job Satisfaction and Work Engagement of Civilian Department of Defense Scientists and Engineers," Fall 2010
13. Eric Sholes, "The Effect of Conative and Affective Traits on the Development of Occupational Expertise of Civilian Department of Defense Scientists and Engineers," Spring 2011.
14. Thomas Nance, "A Longitudinal Study of Multidisciplinary Engineering Design Teams Using Gersick's Punctuated Equilibrium Model of Group Development," Fall 2011.
15. Deborah Howell, "A Relational Study of the Knowledge Sharing Behavior and Organizational Commitment of Engineers," Spring 2012.
16. Stephanie Reitmeier, "Teams and Working Groups – Disparate Organizational Concepts: A Psychometrically Sound Instrument for the Classification of Engineering Groups," Spring 2013.
17. Lisa Blanchard, "Intragroup Conflict: Its Dimensions and Effects on Group Effectiveness in Science and Engineering Natural Work Groups," Spring 2013.
18. Harold Connor, "An Investigation of the Relationship between Result Variables and Contract Transitions in the Department of Energy's National Laboratories and Production Sites," Fall 2013.
19. Rick Suever, "Studying Team Effectiveness: A Longitudinal Study of Variation and Associated Factors, Spring 2014.
20. Ann Kissell, "The Effects of Telecommuting Group Members on Aspects of Knowledge Worker Group Conflict," Summer 2014.
21. Chris Brown, "Status Quo Bias and Ambiguity Aversion in Engineers," Fall 2014.

#### **MSE Committee Chair (118):**

##### Thesis (2)

1. Joe Paxton, "The Effect of Varying Formulations on the Machinability of a Commercially Competitive Rigid Polyurethane Tooling Foam," Spring 1998
2. Karen Hicks, "Decision Making and Communication Process Assessment of NASA Using Three Change Requests from the Space Launch System Program," Spring 2015

## Plan II Paper/Capstone Project (90)

1. Brent Peterson, "An AS/RS AGV Implementation: A Case Study," Spring 1997
2. Cathy Jaskolski, "Managing Equipment Resources and Human Resources in the Foundry Department, American Racing Equipment," Spring 1998
3. Hossein Dadkhah, "Chrysler Operating System," Spring 1998
4. Jonathan Williams, "Acquisition Reform Appraisal - A Case Study of Applications to the THAAD Project," Fall 1998
5. Phil Hicks, "What Are We Teaching Our Engineering Managers," Summer 1998
6. Eric Waters, "A Short Course in Management," Summer 1998
7. Ginger Flores, "Motivational Trends in Engineering Management," Summer 1998
8. Steve Blake, "Organization Structure Analysis: SMDC- Sensors Directorate," Summer 1999
9. Bobby H. Starling, "A Analysis of the Task Order Review Process for the Energy Savings Performance Contracting Program vs. Maintenance Repair and Rehabilitation Program at the Corps of Engineers' UASESCH Engineering and Support Center," Spring 1999
10. Terrie Rice, "Implementation of ISO 9000 vs. TQM at MSFC's Materials and Processes Laboratory," Spring 1999
11. Juan Mendoza, "Utilization of PEMs within the Department of Defense," Spring 1999
12. Rick Howard, "A Method for the Equitable Distribution of Bonuses in Project Teams Through the Use of Enterprise Resource Planning Software," Summer 1999
13. Steve Eacret, "Assessment of Organization Culture within the Army SMDC Sensor's Directorate," Summer 2000
14. Marcus Terry, "Assessment of TBE's Quality Improvement Program," Summer 2000
15. Dory Cobb, "The Change System: How an Organic, Team-based Organization Was Affected by Changes Designed to Increase Production," Fall 2000
16. Kyle Root, "Assessing Leadership Skills in a Team Environment," Fall 2000
17. Bob Fugerer, "The Development of a Signal Processing Self-Directed Team within Sverdrup Technology, Inc. at the Arnold Engineering Development Center," Spring 2001
18. Leah Cook, "Personnel Skills Development: Space and Missile Defense Command, Sensors Directorate," Spring 2001
19. Walter Schneider, "A Study of Teamwork in a Government Agency," Summer 2001
20. Shelby Johnson, "Customer Satisfaction: SMDC, Sensors Directorate," Summer 2001
21. Mike Tomlinson, "Using Management Principles and Operations Research Techniques to Improve Project Success," Fall 2001
22. Brian Wilson, "Too Close to the Customer: A Study of Remote Office Implementation," Fall 2001
23. Mike Wheeler, "A Study of Job Satisfaction with the United States Army Aviation and Missile Command Propulsion Division," Fall 2001
24. Eric Renner, "Management Style and Employee Satisfaction," Fall 2001
25. Keith Anderson, "How Close to Right Are the Unmanned Ground Vehicles Project Integrated Product Teams? A Statistical Analysis," Spring 2002
31. Julie Fortune, "Staff Readiness in a Short-Term Integrated Product Team," Summer 2002
32. John French, "Increasing Productivity By Reducing Travel/Drive Time: An Analysis of GE Medical Systems Ultrasound Group," Fall 2002
33. Daniel Hyatt, "Performance Appraisal Processes: Unique Approaches or Corporate Facades?" Spring 2003
34. Cathryn Sterling, "Management Style and n-Affiliation: Their Effects on Success," Spring 2003
35. Micky Gay, "Performance Appraisals and Their Link to Motivation Theory," Summer 2003
36. Amanda Ponder, "Incorporating Lean Enterprise Techniques Into Strategy Development: An Integrated Approach," Spring 2004
37. Jennifer Stutts, "Production Engineering Division Systems Engineering Capability Maturity Model Assessment," Spring 2004
38. Suzette McGriff, "Production Engineering Division Systems Engineering Capability Maturity Model Assessment," Spring 2004
39. Young Soo Kwon, "Assessment of the Shift Technical Advisors Staffing Change at the High Flux Isotope Reactor," Spring 2005
40. James Turnage, "In Search of a New Production Readiness Review (PRR) Process for Weapons Systems of the US Army Aviation and Missile Command," Spring 2005

41. Susan Carlisle, "A Team Assessment Using an Integrated Model of Group Development Theory on an Integrated Product Team," Summer 2005
42. Wes Christopher, "A Continuation Study Using Braaten's Model on an Integrated Product Team," Fall 2005
43. Mike Brown, "The Chocolate Simulation: A Systems Game for Distance Learning," Spring 2006
44. Eric Griffis, "Environment, Mission, and Strategy Assessment of the High Flux Isotope Reactor (HFIR)," Spring 2006
45. Daniel Lynn, "Teams in Action: A Study of Integrated Product Teams with Respect to the Tuckman Model of Team Development," Summer 2006
46. Sunitha Koppella, "The Study of a Mechanical Design Integrated Product Team with Respect to Tuckman's Stage Model and Comparison with Other Teaming Theories," Summer 2006
47. Sushil Shetty, "Relevance of the Tuckman Model of Group Development with Respect to an Integrated Product Team Performance," Summer 2006
48. David McCarty, "Evaluation of Integrated Product Team Development Using the Tuckman Four Stage Group Development Model," Fall 2007
49. T. Michael Maddox, "A Comparison of Perceived Team and Organizational Performance as a Function of On-Site Status and Resultant Cultural Differences at a Large Defense Contractor," Fall 2007
50. Cassy Robinson, "A Comparison of Teaming Theories and Feedback Instruments Applied in the Teams In Action Research Effort from 2000-2007," Spring 2008
51. M. Scott Mitchell, "We Could Really Use a Plan: A Comparison of Three Case Studies in Understanding Successful Change Implementation," Spring 2008
52. Mark Durham, "Application of the Gersick Group Development Model to Student Engineering Teams," Fall 2008
53. H. Brooke Hodges, "Forming a Team with Government and Industry: Apache D-Model," Fall 2008
54. John T. Hill, "Process Improvement: Applying Six Sigma to an Engineering Process," Fall 2008
55. Chris Abbott, "An AEDC Project Analysis with Dynamic Systems Modeling," Fall 2008
56. Lisa Blanchard, "The Coverage of Lean Principles in Higher Education Curricula," Spring 2009
57. Norman Duffell, "Investigating the Behavior of Teaming Characteristics throughout the Project Lifespan," Spring 2009
58. James White, "An Analysis of Department of Defense Contractors and Team Performance," Spring 2009
59. Nathan Wincey, "Utilizing Systems Engineering Principles and Project Management Techniques in a HAWK Evolution Design within a Team Environment," Spring 2009
60. Christopher "Drew" Cromer, "Implementation of Integrated Product Teams at a Government Organization," Fall 2009
61. J. Devon Parker, "Utilizing TQM Principles to Build a Safety Culture," Fall 2009
62. Michael Lazalier, "Using Knowledge Management Practices To Reduce Corporate Knowledge Loss," Fall 2009
63. Tracey Akpan, "Accountability: A Characteristic of Team Development," Fall 2009
64. Thomas Prohaska, "The Retention of Government Engineers within RTTC," Fall 2009
65. Kai Glaremin, "Teams vs. Working Groups: Definitions, Characteristics and Different Perspectives," Fall 2009
66. Kevin Cahill, "Foreign Aircraft Fiasco – a Case Study in Project Management Misdirection," Spring 2010
67. Matt Feldmeier, "Observing and Measuring Interpersonal Relationships in a Team Setting," Spring 2010
68. Jonathan Hill, "Development of a Quality Engineering Strategic Plan of Action for the Unmanned Aircraft Systems Project Management Office," Spring 2010
69. Tracie Bedsole, "An Assessment of Six Working Groups and the Benefits of Incorporating Team Tendencies," Summer 2010
70. Bobby Woodruff, "Analysis of Empirical Data Evaluation Valuating Engineering Team and Working Group Characteristics," Fall 2010
71. Amy Adams, "Single Assessment of Managerial Style and Personality Type," Spring 2011
72. Carol Braswell, "The Army Aviation Supplier Interface and Oversight Program Audits: A Case Study," Spring 2011
73. Joseph Ary, "The Effect of Leadership Styles on Organization Culture," Fall 2011
74. Mark Etheridge, "An Assessment of the Organizational Factors in the Space Shuttle Columbia Accident and the Failure of Lehman Brothers Holdings, Inc.," Fall 2011
75. Shea Lakin, "Managerial Implementation of Community of Practice to Facilitate Increased Human Capital Utilization in Organizational Teams," Fall 2011.

76. Kristin Deardorff, "A Case Study Analysis on Problems that Can Arise During Projects and Ways to Manage or Avoid Them," Fall 2011.
77. Fred Tajalle, "Assessing Group Development Characteristics in a Professional Engineering Group," Spring 2012.
78. James Nore, "Comparison of Herzberg et.al. 1959 Study with Small Scale 2011 Study," Spring 2012.
79. William Monk, "Communication Patterns in Group Development," Spring 2012.
80. Max Eddy, "Expediting Continuous Improvement on DoD Programs by the Application of Engineering Management Principles," Summer 2012.
81. Heather Brockman, "Trust and Teamwork at Hargrove Engineers and Constructors," Summer 2012
82. Josh Hamilton, "Organizational Requirements for Successful Innovation," Fall 2012.
83. Devin Chamness, "Modernization Study for the Missile A Weapon System," Fall 2012.
84. Alex Ragland, "Engineering Management and Success Factors: A Case Study of Three Programs," Fall 2012.
85. Gerald Oliver, "DSESTS Sustainment," Fall 2012.
86. Stephen Kyle Hamilton, "Teaming Theories Applied in the Teams In Action Research Effort from 2000 – 2012 Focused on 2008-2012," Fall 2012.
87. Chris Dishon, "The Pursuit of Industry Excellence: Analyzing SNC Organizational Design and Management Techniques," Spring 2013.
88. Vergenia Shelton, "Practical Case Study for Implementation of a Community of Practice in an Aerospace Engineering and Analysis Firm," Spring 2013.
89. Amanda Clark, "Improving the Diffusion of Tacit Knowledge within an Organization's Communities of Practice through the Reduction of Defensive Routines," Spring 2013
90. Eric Seltmann, "System of Systems Architecture Design and Project Planning Using Design Structure Matrix (DSM)," Spring 2013.

Plan II – Modified (coursework) (26)

1. James Cook, Summer 2000
2. Donna Griffith, Fall 2001
3. P.J. Benfield, Spring 2002
4. Debbie Ledbetter, Spring 2002
5. Andy Gamble, Spring 2002
6. Alberto Duarte, Fall 2003
7. Barbara Rusinko, Fall 2007
8. Andy Sutinen, Spring 2013
9. Jonathan Baker, Fall 2013
10. Malina Panda, Fall 2013
11. Deanna Torres, Fall 2013
12. Robert Dudley, Spring 2014
13. Arissa Hodges, Spring 2014
14. Briana Merckerson, Spring 2014
15. Joel Palmer, Spring 2014
16. Brad Schroer, Spring 2014
17. Trent Thompson, Spring 2014
18. Roger Vaughn, Spring 2014
19. Brian West, Spring 2014
20. Brad Schroer, Spring 2014
21. Vanessa Kacer, Summer 2014
22. Ryan Manning, Fall 2014
23. Todd Watts, Fall 2014
24. Jackson Wilson, Fall 2014
25. Anthony Steele, Spring 2015
26. Regina Cloud, Spring 2015

**B.S.E., Chairman (40):**

1. Chad Smith, Fall 1996
2. Angela Allred, Spring 1997
3. Donald Kennedy, Spring 1997
4. J.D. Stingel, Summer 1997
5. Yongke Thio, Fall 1997
6. John Gregg, Spring 1998
7. Jennifer Smail, Spring 1998
8. Dewayne Eddy, Summer 1998
9. Gloria Likeum, Spring 1999
10. Jennifer Moebes, Spring 1999
11. Daniel Underwood, Spring 1999
12. Brandy Brasfield, Summer 1999
13. Pam Sharpe, Summer 1999
14. Heather Bevel, Fall 2000
15. Pablo Diaz, Fall 2000
16. Kelly Sacco, Fall 2000
17. Cathryn Sterling, Fall 2001
18. Amanda Ponder, Spring 2002
19. Roy (Trey) Brown, Summer 2002
20. Robbie Davis, Fall 2002
21. Barry Stokes, Spring 2003
22. Naydanka Huamani, Fall 2003
23. Jackson Harren, Spring 2004
24. Michael Grady, Spring 2004
25. Amanda Lott, Spring 2005
26. Brent Pressnell, Summer 2005
27. Jessica Jordan, Spring 2006
28. Jana Edwards, Spring 2007
29. Chris Sizemore, Summer 2007
30. Jennie Berry, Summer 2007
31. Michael Alldredge, Spring 2008
32. Alison Pack, Spring 2008
33. Jerome, David, Spring 2009
34. Defourneaux, John, Spring 2010
35. Griffin, Christopher, Spring 2010
36. Liles, Marshall, Spring 2010
37. Ols, Andrew, Spring 2010
38. Colvett, Christopher, Summer 2010
39. Merkerson, Briana, Fall 2010
40. Kelsey Cagle Spring 2012

**PhD Committee Member (33):**

1. Gary Maddux, "A Comparative Analysis of the Department of Defense Integrated Product Team Structure to Likert's System IV Organization," Fall 1999
2. Dunn, Steve, "An Empirical Application of Herzberg's Motivator-Hygiene Theory to Examine the Motivational Aspects Pertaining to Project and Functional Management in a Matrix Organization," Fall 2002
3. Caroline Bell-Roundtree,
4. Dixon, Gene, "An Exploration of the Effects of Organizational Level on Attributions of Followers," Fall 2003



5. Lyon, Mike, "Mentoring of Scientists and Engineers: Dyadic and Formality Effects on Career Development and Psychosocial Interactions," Fall 2003
6. Lord, Bob, "Empirical Evaluation of Classical Behavioral Theories with Respect to the Motivation of Older Knowledge Workers," Spring 2004
7. Robertson, Rodney, "An Empirical Study of the Relationship between the Health of Project Teams and Their Overall Performance," Spring 2004
8. Keyser, Rick, "Assessing the Relationship between Knowledge Management and Plant Performance at the Tennessee Valley Authority," Spring 2004
9. Shankle, Wyatt, "Engineering Standards: A New Contextual Variable for Organization Structure," Spring 2004
10. Don Krupp, "Dynamic Sliding Manifold-Based Control in Systems with Unmodeled Cascade Dynamics," Fall 2004
11. Edgar Blevins, "Application of Herzberg's Motivation-Hygiene Theory of Job Satisfaction to a Department of Defense Demonstration Project," Spring 2005
12. Walter Tamosaitis, "The Relationship between Employee Performance Ratings and the Three Components of Organizational Commitment for Engineering Personnel in a Project Environment," Spring 2006
13. Pamela Knight, "The Tuckman Team Development Model's Ability to Explain Small Duration Technical Team Development as Evidenced by DAU Teams," Spring 2006
14. Andrea Miller, "Assessing the Relationship between Organizational Socialization Tactics and Culture in High Technology Organizations," Spring 2006
15. Ed Marquart, "Classification of Knowledge-Intensive Organizations," Summer 2006
16. Lane Kimbrough, "The Relationship between Perceptions of Organizational Culture and Implementation of Enterprise Risk Management," Fall 2006
17. Wayne Hudry, "An Explorations of the Attributes of Engineers Who Reach Top Management Positions in High-Technology Companies Located in the Huntsville, Alabama Region," Spring 2007
18. Greg Harris, "Alignment of Supply Chain Strategy with Product Characteristics," Spring 2007
19. Frances Alston, "The Relationship between Perceived Culture and Trust in Technology-Driven Organizations," Fall 2007
20. Joe Krupa, "An Extension of Systems Engineering Tools to the Development of a Formal Method for CAIV Implementation," Spring 2008
21. Steve Pierce, "An Assessment of the Relationship between the Type of Metric Used and Performance in Government Service Organizations," Fall 2008
22. Ken Sullivan, "A Method for the Classification of Products to Effectively Support Supply Chain Alignment," Fall 2008
23. Jennifer Watson, "Critical Success Factors for Implementing Transitional Organizational Change in a Government Engineering Organization," Summer 2009
24. James O. Johnson, "The Empirical Relationship between the Level of Job Satisfaction and the Quality of Leader-Member Exchange in Engineers and Scientists at a Government Aerospace Facility," Fall 2009
25. Everett Roper, "The Relationship between Organizational Culture, Management Leadership Style and Organizational Commitment and Their Impact on Organizational Out-comes in a High-Technology Organization," Fall 2009
26. Kimberley Robinson, "The Relationship between Employee Organizational Commitment and Trust in High-Technology Organizations," Summer 2010
27. Mark Antonison, "Evaluation of Work Engagement as a Measure of Psychological Well-Being from Work Motivation," Fall 2010
28. Craig Whittinghill, "An Evaluation of the Perceived Organizational Culture and Innovative Climate of a Department of Defense Community of Organizations," Spring 2011
29. Keith Burleson, "The Applicability of the Punctuated Equilibrium Model to Team Development in Science and Engineering Organization," Fall 2011.
30. Sushil Shetty, "A Proposed New Model to Understand Lean Implementation Using Employee Perception," Spring 2012.
31. Carl Ise, "A Discrimination of Critical Success Variables that Indicate Increased Likelihood to Achieve Phase III Commercialization or Technology Infusion from NASA Funded Phase II Small Business Innovation Research," Fall 2012.
32. Warren Thomas, "The Impact of RFP Phase Project Scope Development on the Successful Outcome of Construction Projects Using the Design Build Project Delivery Method," Spring 2013

33. Michelle LaDuca, "The Relationship between Role Conflict and Employee Retention in a Government Engineering Organization," Spring 2014.

#### **MSE Committee Member (70):**

##### Thesis (6)

1. Douglas Estremadoyro, "A Systems Approach to the Design of a Job Shop Tracking and Reporting System," Spring 1997
2. Terrell Gibbs, (CEE), "Optimization of Titanium Dioxide Photocatalysis for Sanitary Waste Water Treatment," Spring 2001
3. Lynn Dean, (CEE), "Analysis of the Nitrification/Denitrification Process of a Reciprocating Constructed Wetland at the Huntsville Botanical Gardens," Summer 2001
4. Donna Jackson, (CEE), "A Study of the Ammonia Removal Process in the Reciprocating Constructed Wetland at the Huntsville Botanical Gardens in Huntsville, Alabama," Fall 2001
5. Paul Overstreet, "The Development of a Solar Reactor and Model for Optimizing Titanium Dioxide Photocatalysis in Petroleum Contaminated Water," Fall 2001
6. Jason Williams, "Development of a Hover Test Bed," Spring 2010

##### Plan II Paper/Capstone Project (51)

1. Sonya Sisk, "Evaluating Quality Essentials at MSFC," Fall 1999
2. Daniel O'Neil, "Managing Geographically Distributed Teams Using Internet Technology," Spring 1998
3. Jerrold Young, "Integrating Quality Concepts Within a Registration Process," Summer 1998
4. Frank Miyagawa, "Organic or Mechanistic?" Summer 1998
5. Deborah Miller, "Two-Input CMOS NOR Gate Examination for Minimum Delay and Power Distribution," (ECE) Summer 1998
6. Alton English, "Making the Theory of Constraints A Critical Link in the Project Management Chain at MSFC," Spring 1999
7. Ron Sisulak, "The Design and Manufacturing Strategy at Toro's Engine Plant: A Case Study," Summer 1999
8. Joe Hamaker, "The Faster, Better, Cheaper Approach to Space Missions: An Engineering Management Assessment," Fall 1999
9. Neil Tyson, "Work (Process) Flow Analysis: SMDC Sensors Directorate," Fall 1999
10. Lance Cooper, "Customer Satisfaction: SMDC, Sensors Directorate," Spring 2000
11. Dale Moore, "Systems Engineering: What's Really Happening in the Field?" Spring 2000
12. Claudnette Purifoy, (CEE), "Water Quality Analysis of the Flint River Madison County, Alabama," Spring 2000
13. Angel Armstrong, "Organizational Coordination Affects on the Near Term Technology Infusion," Spring 2000
14. Robert Edlund, "A Case Study: Implementing Change in a Government Bureaucracy," Fall 2000
15. Philip Loftis, "Supplier Relations: Aviation and Missile Command, Sensors Directorate," Spring 2001
16. William Simpson, "Employee Motivation: Aviation and Missile Command, Sensors Directorate," Spring 2001
17. Gary Stiger, "The Assessment of CMMI-SE/SW V. 1.0 ISO/IEC 15288 CD2 Requirements," Spring 2001
18. Bill Ruta, "A Practical Approach to Cost as an Independent Variable Implementation Within the Program Executive Office, Tactical Missile (Best Practices)," Summer 2001
19. Christopher Rosson, "An Investigation of Leadership and the Use of Leadership Tools to Predict Team Success," Fall 2001
20. Arthurine Shackelford, "Baseline of the SMDC Technology Center," Spring 2002
21. Steve Adams, "Using Discrete Simulation to Optimize User Licenses," Summer 2002
22. Scott Boley, "Response of Various Control Charts to Non-Normal Data," Spring 2002
23. Jeffery Brothers, "Systems Engineering Study," Spring 2003
24. Dan Schneider, "An Assessment of the Large Government Laboratory Implementation of the Laboratory Demonstration Using Herzberg Motivation-Hygiene Theory," Summer 2003

25. Frances Alston, "Benchmarking Engineering Planning and Scheduling," Fall 2003
26. Eric Woodfin, "Use of One Design Experiment to Improve Intermodulation Characteristics of 50 Coaxial Cable and Its Effect on an Inexperienced Organization's Culture," Fall 2003
27. Steve Elliot, "The SMDC Employee Survey: Trends and Analysis," Spring 2004
28. Bob Vasse, "Crossbow – An Individual Soldier Missile," Spring 2004
29. Davis Swafford, "Shiftwork, Cash Rewards, and Employee Satisfaction in a Space Flight Environment," Spring 2004
30. Mike Kutch, "Implementing Change in an Organization Using the Capability Maturity Model Integration," Sp 2005
31. Chris Wilson, "A Re-Evaluation of Schneider's Team Performance Evaluation Survey Tool Using Larson and LaFasto's Theory of Team Characteristics," Summer 2005
32. Craig Carlisle, "Analysis of a Six Sigma Project to Reduce Cycle Time in Generating Life Cycle Cost Estimates," Summer 2005
33. Laurie Fraser, "Project Management Challenges of a Composable Modeling and Simulation Capability," Spring 2006
34. Toneka Dorsey-Lindsey, "The Project Management Process in the Municipal Atmosphere of the City of Huntsville Engineering Division," Summer 2006
35. Kurt Steckmesser, "Monte Carlo Simulation: A Tool for Logistics Cost Estimation," Fall 2006
36. S. Joe Brockway, "Using Statistical Techniques to Develop a Model Predicting the Outcome of a Season of Division One College Football," Fall 2007
37. Nicolas Henson, "Sustainability Metrics for the Chemical Industry's First Line Employees," Fall 2007
38. Jonathan Hornbuckle, "Technology Readiness Transition in the DoD Acquisition Process: A Comparison to Leading Commercial Practices," Fall 2008
39. Patrick Jemison, "A Continuous Ramp Methodology for Vibration in Highly Accelerated Life Testing," Spring 2009
40. Khalid Sharfi, "Developing Criteria To Standardize the Project Management Plan in the Construction Projects of the Alabama Department of Transportation – First Division," Spring 2009
41. Joshua Meeks, "Using Performance Evaluation to Increase Job Satisfaction and Employee Retention," Fall 2009
42. Matthew Wood, "Application of Learning Curve Models To Assist in Proposal Evaluations for Firm Fixed Price Contracts," Spring 2010
43. Jacob Noffke, "A Comparison of Employee Relationships with Respect to Motivation and Organizational Culture for Onsite and Offsite Employees," Summer 2010
44. Tim Tinsley, "Project Management System Architecture for Radiance Technologies, Inc., Huntsville, AL.," Summer 2010
45. Chad Pry, "Managing Outsourcing of IT Support for a Pharmaceutical Distributor.," Fall 2010
46. George Harper, "Customer Responsiveness and Growth in the Prototype Integration Facility," Fall 2011
47. Steve Helmbrecht, "Team Cohesion and Its Effect on Productivity," Spring 2012
48. Matt Rhodes, "Light Meter Turn Around Time Reduction: A Lean Six Sigma Project," Spring 2012
49. Morgan Lambert, "Virtual Teams: Technology and Skill," Fall 2012
50. Jesse Davis, Fall 2013
51. Maria Brown, Fall 2013

#### Plan II Modified (Coursework) (13)

1. Marvin Nichols, Spring 1998
2. Erika Jones, (ECE) Spring 1998
3. Tammy Gattis, Fall 1998
4. Hank Miller, Fall 1999
5. Maher Almoghraby, Summer 2000
6. Ben Lankford, Spring 2002
7. Jason Newell, Spring 2002
8. Angie Nolen, Fall 2003
9. Doug Keener, Spring 2005
10. Vernotto McMillan, Spring 2007

11. Dan Mitchell, Summer 2008
12. Craig Verlinden, Summer 2008
13. Jessica Troyer, Summer 2012

## **TEACHING**

### **The University of Alabama in Huntsville**

ISE 124 Introduction to Industrial and Systems Engineering (reformatted as a freshman level course)  
ISE 224 Introduction to Industrial and Systems Engineering (developed course)  
ISE 326 Production and Operations Systems I  
ISE 327 Management Systems Analysis (revised course)  
ISE 427 Management Systems Analysis (revised course)  
EM 660 Engineering Management Theory (revised course)  
EM 661 Strategic Engineering Management  
EM 662 Foundations of Quality Systems Management  
EM 664 Engineering Teams in Action (developed course)  
EM 679 Special Topics: Engineering Managers as Entrepreneurs (developed course)  
EM 679 Special Topics: Teams in Action (developed course)  
EM 679 Special Topics: Leadership and the Engineering Manager (developed course)  
EM 760 Organization Structure of the Technical Enterprise (revised course)  
EM 762 Productivity and Quality Engineering

### **Motlow State Community College**

Principles of Management  
Introduction to Business  
Small Business Management

## **SERVICE**

### **Local/Regional/National Service Activities**

Board Member - Huntsville Area IIE Chapter 69 (1998 to Present)  
Session Chair – 2<sup>nd</sup> International Conference on Engineering Design and Automation, Maui, Hawaii, August 1998  
Session Chair – 1998 ASEM National Conference, Virginia Beach, VA, October 1998  
Reviewer – Engineering Management Journal, 1998 - present  
Session Chair – 2001 International Conference on IEMS & ICC&IE, March 2001  
Co-Proceedings Editor – 2001 ASEM National Conference, Huntsville, AL, October 2001  
Special Session Chair – 2002 ASEM National Conference, Tampa, FL, October 2002  
Special Session Chair – 2003 ASEM National Conference, St. Louis, MO, October 2003  
Area Editor for Quality Engineering – Engineering Management Journal, 2003 - 2010  
Area Director for Marketing – ASEM, 2003 to 2007  
Conference Panel - Panel Discussion to Identify Critical Topics for Engineering Manager Practitioners,” 2003 ASEM National Conference, St. Louis, MO, October 2003  
Session Chair – 2004 ASEM National Conference, Alexandria, VA., October 2004  
General Chair ASEM National Conference – hosted in Huntsville, Oct 2006  
Science Fair – Safety Compliance Inspector, North Alabama, 2006, 2007  
Special Session Chair – 2007 IERC, Nashville, TN, May 2007  
Session Chair – 2008 ASEM National Conference, West Point, NY, Nov 2008  
Secretary ASEM (national) 2007-2008  
President Elect ASEM (national) 2008-2009  
President ASEM (national) 2009-2010

### **University Service Activities**

Distance Learning coordinator and ombudsman – 1992-99  
 UAH - NTU coordinator – 1992-2005  
 ISEEM Departmental Admissions Committee – 2000-2014  
 ISEEM Homecoming Program Chair – 2001-2005  
 ISE Department Scholarship Committee - 1994-2014  
 Instruction and Advising Committee, College of Engineering - 1994-98  
 Faculty Advisor, Student Chapter of Institute of Industrial Engineers - 1995-2003; 2007-2008; 2013-14  
 ISE Representative to Teamwork Transition meeting with Calhoun Community College - 1996  
 Observer for Ph.D. and MSE Examination – Physics, 1996; Math, 1997; Physics 1999, Computer Science 2002,  
 Biology 2003, Computer Science 2004, MAE 2005, MAE 2006, ECE 2007, Nursing 2009, ECE 2010,  
 MAE 2011, Psy 2012  
 Re-admissions Committee, College of Engineering - 1998-2000  
 Committee on Diversity, College of Engineering – 1999-2001  
 PE Licensure Committee – 1999-2008  
 Ethics Committee – 1999-2000  
 PTAC for College of Engineering – 2004, 2005, 2006, 2007, 2009  
 University Judicial Board, UAH - 1998-2000  
 Associate Director of Distance Learning Programs, UAH – 2002-2008  
 Interim Director of Distance Learning Programs, UAH – 2008  
 Director of Distance Learning Programs, UAH – 2009-2010  
 College of Engineering Summer Camp, UAH – 2002, 2003, 2004, 2005, 2006, 2007, 2008  
 Co-Chair, College of Engineering Summer Camp, UAH - 2009  
 Graduate Council, UAH – 2003-2005  
 Faculty Teaching Award Selection Panel 2007  
 Faculty Appeals Committee 2007-2008  
 Employee Benefits Committee 2011-2014  
 InSPIRESS Reviewer 2011-2012  
 ISEEM ABET Coordinator 2012-2014  
 EM Faculty Search Committee 2014-2015

### **Speaking Engagements**

Conducted training in Teaching via Distance Learning to UAH faculty – 1994-95  
 UAH representative at Bell South Education Fairs, Birmingham, Alabama - 1995  
 Guest Lecturer for EM 761 - 1995-01  
 ISE Department Representative at UAH Compass Orientation Program - 1995  
 UAH representative at Lockheed Martin Education Fair, Oak Ridge, Tennessee – 1996, 1997  
 Guest Speaker at Junior Seminar class at Tennessee Technological University – April 2003  
 Guest Speaker for Oak Ridge/Knoxville chapter of American Society for Engineering Management - May 2005  
 Invited Speaker Lean Conference – hosted by UAH Sept 2011

## **PROFESSIONAL DEVELOPMENT**

GLF Quality Associates – ISO 9000 training, Summer 1998  
 Security briefing, Fall 1999, 2000  
 Web CT training, Spring 2000  
 Faculty Web, Cerberus training, Spring 2000  
 Purchase requisition training, Fall 2000  
 Grant/Proposal Writing Seminar, Spring 2000  
 ABET Evaluator Training, Spring 2005  
 Lean Principles Certificate, ATN, Fall 2005  
 Lean Certificate Series, UAH, Spring 2006  
 RCR Training, July 2010

SRA Human Subject Research Training, Sept. 2011

Export Control, Dec 2011

Data Mgt, Authorship, Mentoring, March 2012

Research Misconduct, March 2012

ITAR Training, March 2013

Security Briefing for Secret Clearance Jan 2014

Export Control Training Jan 2014, Jan 2015