

Dr. Sampson E. Gholston

University of Alabama in Huntsville
Industrial and Systems Engineering
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Education

Ph D, The University of Alabama in Huntsville, 1999.
Major: Industrial and Systems Engineering
Supporting Areas of Emphasis: Quality Engineering
Dissertation Title: Multiple Objective Optimization Design of Hydrostatic Bearings

MS, University of Alabama, 1993.
Major: Industrial Engineering
Supporting Areas of Emphasis: Quality Engineering
Dissertation Title: Taguchi Parameter Design of a Measuring System

BS, Austin Peay State University, 1991.
Major: Engineering Technology
Supporting Areas of Emphasis: General

Academic, Government, Military and Professional Positions

Professional

Supplier Quality Eningeer, Saturn Corporation. (March 15, 1996 - August 13, 1997).

Licensures and Certifications

Lean Six Sigma Master Black Belt, Villanova University. (April 15, 2015).

Lean Healthcare Certification, LAI. (March 15, 2014).

Lean Six Sigma Yellow Belt, Florida Sterling Award. (October 20, 2013).

Lean Six Sigma Black Belt, Arizona State university. (June 15, 2010).

Professional Memberships

Lean Board Member, Institute of Industrial Engineering. (March 15, 2015 - April 15, 2017).

Member Council, Society of Manufacturing Engineers. (May 15, 1988 - November 15, 2016).

Development Activities Attended

Conference Attendance, "2015 Baldrige Regional Conference," The Baldrige Performance Excellence Program, Nashville, TN, USA. (September 25, 2015).

LEAD Program, "Selected to the Leadership Development Program," UAH, Huntsville, AL, USA. (August 20, 2014 - May 5, 2015).

Baldrige program Examiner, "National Baldrige Performance Award," National Institute of Technology, Baltimore, Maryland, USA. (March 30, 2010 - August 30, 2013).

Examiner for Florida Sterling Award, "Florida Sterling Quality Award," Florida's Governors Office, Tallahassee, Florida, UAS. (August 20, 2011 - August 20, 2013).

Workshop, "Teaching Teachers to Teach Engineering," West Point University, West Point, New York, USA. (July 15, 2000 - July 18, 2000).

TEACHING

Teaching Experience

University of Alabama in Huntsville

EM 698, ENGR MANAGEMENT PROJECT II, 1 course.
EM 799, DOCTORAL DISSERTATION, 5 courses.
ISE 423, INTR STATISTICAL QUALITY CONTR, 2 courses.
ISE 439, ST:INDUST ENGR SNR DESIGN II, 3 courses.
ISE 497, IND & SYS ENGR INTERNSHIP, 1 course.
ISE 523, INTR STATISTICAL QUALITY CONTR, 5 courses.
ISE 639, ST: BALDRIGE ASSESSMENT, 9 courses.
ISE 641, ADVANCED QUALITY CONTROL, 5 courses.
ISE 690, STATISTICAL METHODS FOR ENGR, 9 courses.
ISE 697, INDUS & SYSTEMS ENGR PROJECT I, 1 course.
ISE 799, DOCTORAL DISSERTATION, 8 courses.

Directed Student Learning

Dissertation Committee Chair, "Designed Experiments in Nano manufacturing," Industrial and Systems Engineering. (January 5, 2015 - May 15, 2017).
Advised: Steven Harrington

Dissertation Committee Chair, "Reliability Assessemnt," Industrial and Systems Engineering. (August 15, 2014 - May 15, 2017).
Advised: Daniel Sullivant

Dissertation Committee Chair, "Lean Manufacturing Assessemnt," Industrial and Systems Engineering. (May 15, 2013 - May 15, 2017).
Advised: Pearse Gaffney

Dissertation Committee Chair, "DOD Performance Excellence," Industrial and Systems Engineering. (May 15, 2012 - May 15, 2017).
Advised: Andrea Weathington

Dissertation Committee Chair, "Software Quality," Industrial and Systems Engineering. (March 15, 2014 - December 15, 2015).
Advised: Neal Lovell

RESEARCH

Published Intellectual Contributions

Refereed Journal Articles

Dyas, S., Greenfield, E., Messimer, S. L., Thotakura, S., Gholston, S. E., Doughty, T., Spalding, J., Ivey, R. (2015). Emergency Department Cost Model. *Annals of Emergency Medicine*.

Kim, J., Anderson, M. D., Gholston, S. E. (2015). Modeling Safety Performance Functions for Alabama's Urban and Suburban Arterials. *International Journal of Traffic and Transportation Engineering*, 4(3), 84-93. <http://article.sapub.org/10.5923.j.ijtte.20150403.02.html>

Shetty, S., Componation, P. J., Gholston, S. E. (2012). A Stepwise Method of using Exploratory

- Factor Analysis in creation of a Lean Survey. *Journal of Management and Engineering Integration*.
- Shetty, S., Componation, P. J., Gholston, S. E. (2011). Content Validation of an Assessment Tool of an Individual's Perception of Lean Implementation. *Journal of Management and Engineering Integration*, 4(1).
- Componation, P. J., Jamison, P., Wessels, W. R., Gholston, S. E. (2011). Exploring Alternative Strategies for Highly Accelerated Life Testing (HALT). *The Journal of Reliability, Maintainability, and Supportability in Systems Engineering*.
- Sullivant, D., Gholston, S. E., Wessels, W. R. (2011). Optimizing Availability Analysis using a Lean Six Sigma Process. *Journal of Management and Engineering Integration*, 4(2).
- Anderson, M., Abdullah, Y., Gholston, S. E., Jones, S. (2010). Development of a methodology to predict through trip rates for small communities. *ASCE Journal of Urban Planning Development*.
- Youngblood, A., Componation, P. J., Gradl, P., Gholston, S. E. (2009). Considering Risk Within Net Present Value: Calculations for Government Projects. *The Engineering Economist: A Journal Devoted to the Problems of Capital Investment*, 54(2), 152.
- Etzkorn, L. H., Gholston, S. E., Hughes, Jr, W. E. (2009). perceptual-cognitive development. *Anthropology News*.
- Stein, C., Etzkorn, L. H., Gholston, S. E., Farrington, P. A., Utley, D. R., Cox, G., Fortune, J. L. (2009). Semantic Metrics: Metrics Based On Semantic Aspects Of Software. *Applied Artificial Intelligence*, 23(1), 44–77.
- Gall, C., Lukins, S. K., Etzkorn, L. H., Gholston, S. E., Farrington, P. A., Utley, D. R., Fortune, J. L., Virani, S. (2008). Semantic software metrics computed from natural language design specifications. *Software, IET*, 2(1), 17–26.
- Cox, G., Gholston, S. E., Utley, D. R., Etzkorn, L. H., Stein, C., Farrington, P. A., Fortune, J. L. (2007). Empirical Validation of RCDC and RCDE Sematic Complexity Metrics for Object Oriented Software. *Journal of Computing and Information Technology*, 15(2), 1-10.
- Olague, H. M., Etzkorn, L. H., Gholston, S. E., Quattlebaum, S. (2007). Empirical validation of three software metrics suites to predict fault-proneness of object-oriented classes developed using highly iterative or agile software development processes. *Software Engineering, IEEE Transactions on*, 33(6), 402–419.
- Stein, C., Etzkorn, L. H., Gholston, S. E., Farrington, P., Fortune, J. L. (2006). A knowledge-based cohesion metric for object-oriented software. *INFOCOMP Journal of Computer Science*, 5(3), 45–53.
- Etzkorn, L. H., Gholston, S. E., Fortune, J. L., Stein, C. E., Utley, D. R., Farrington, P. A., Cox, G. W. (2004). A comparison of cohesion metrics for object-oriented systems. *Information and Software Technology*, 46(10), 677–687.
- Etzkorn, L. H., Weisskop, M. E., Gholston, S. E. (2004). A Study of Student Performance in Combined Courses. *Journal of Information Systems Education*, 15, 163–170.
- Anderson, M. D., Gholston, S. E., Akkinepally, V. K. (2004). Feasibility of Urban Planning Models to Support Intermediate Traffic Analysis. *ASCE Journal of Urban Planning and Development*, 130(3).
- Carbone, T. A., Gholston, S. E. (2004). Project Management Skill Development: A Survey of

Programs and Practitioners. *Engineering Management Journal*, 16(3).

Etzkorn, L. H., Gholston, S. E., Weisskopf, M. E. (2004). A Study of Student Performance in combined Courses. *Journal of Information Systems Education*, 15(2).

Etzkorn, L. H., Gholston, S. E., Hughes, W. E. (2002). A semantic entropy metric. *Journal of Software Maintenance and Evolution: Research and Practice*, 14(4), 293–310.

Superville, C. R., Gholston, S. E. (2001). The Design and Outline Delivery of a Quantitative Management Course. *B-Quest: a journal of applied topics in business and economics*.

Conference Proceedings

Virani, S., Etzkorn, L. H., Gholston, S. E., Farrington, P. A., Utley, D. R., Fortune, J. L. (2009). Investigation of domain effects on software. *Proceedings of the 47th Annual Southeast Regional Conference* (pp. 37).

Stein, C., Etzkorn, L. H., Cox, G. W., Farrington, P. A., Gholston, S. E., Utley, D. R., Fortune, J. L. (2004). A New Suite of Metrics for Object-Oriented Software. *Software Audit and Metrics* (pp. 49–58).

Presentations Given

Gholston, S. E. (Author & Presenter), John, N. M. (Author), IIE Engineering Lean & Six Sigma Conference 2015, "Test-time Reduction for Radar Performance Validation in Deep Space," IIE, Atlanta, GA. (October 1, 2015).

Gholston, S. E. (Author & Presenter), Utley, D. R. (Author), Messimer, S. L. (Author), IIE Engineering Lean & Six Sigma Conference 2015, "Using Strategic Quality Planning to Sustain Lean Six Sigma Implementation," IIE, Atlanta, GA. (October 1, 2015).

Swain, J. J. (Author), Messimer, S. L. (Author & Presenter), Gholston, S. E. (Author), Ivey, R. (Author), Industrial Engineering Research Conference, "Optimization of Critical Care Unit Expansion using Simulation," IIE, Nashville, TN. (May 31, 2015).

Taylor, K. (Author & Presenter), Hays, M. Peggy (Author), Gholston, S. E. (Author), 21th International Conference of Industrial Engineering and Management Systems, "An Exploratory Study to Link Patient Expectations in the Emergency Department to the Care Process," IEMS, Cocoa Beach, FL. (March 25, 2015).

Mayhall, C. (Author), Gholston, S. E. (Author & Presenter), Doughy, T. (Author), 21th International Conference of Industrial Engineering and Management Systems, "Case Study: Implementing the Baldrige Criteria at a Healthcare Facility," IEMS, Cocoa Beach, FL. (March 25, 2015).

Gholston, S. E. (Author & Presenter), Messimer, S. L. (Author), Utley, D. R. (Author), Greenfield, E. (Author), Thotakura, S. (Author), Dyas, S. (Author), 21th International Conference of Industrial Engineering and Management Systems, "Case Study: Using Strategic Quality Planning to Align Healthcare Improvement Project to the Organization's Vision," IEMS, Cocoa Beach, FL. (March 25, 2015).

Gholston, S. E. (Author & Presenter), Messimer, S. L. (Author), Utley, D. R. (Author), Greenfield, E. (Author), Thotakura, S. (Author), Dyas, S. (Author), 21th International Conference of Industrial Engineering and Management Systems, "Case Study: Using Strategic Quality Planning to Align Healthcare Improvement Project to the Organization's Vision," IEMS, Cocoa Beach, FL. (March 25, 2015).

Tetty, A. (Author), Gholston, S. E. (Author & Presenter), Welch, P. (Author), 21th International

- Conference of Industrial Engineering and Management Systems, "Inventory Management at the Emergency Unit of the Huntsville Hospital," IEMS, Cocoa Beach, FL. (March 25, 2015).
- Gholston, S. E. (Author & Presenter), Sader, M., Chadde, J., Stewart, R., Mokashi, A., 56th Annual Transportation Research Forum, "Analyzing What Works Best for Transportation Education," Journal of Transportation Research, Atlanta, GA. (March 12, 2015).
- Bergquist, H. (Author), Gholston, S. E. (Author & Presenter), Messimer, S. L. (Author & Presenter), Hays, M. Peggy (Author), Dyas, S. (Author), Greenfield, E. (Author), Thotakura, S. (Author), Doughty, T. (Author), Lyon, M. (Author), Industrial Engineering Research Conference, "Developing Dashboard Metrics for an Emergency Department," IIE, Montreal, Canada. (2014).
- Gholston, S. E. (Author), Messimer, S. L. (Author), Dyas, S. (Author), Greenfield, E. (Author), Thotakura, S. (Author), Doughty, T. (Author), Ivey, R. (Author), International Summit on Industrial Engineering, "Data Analysis to Support Healthcare Decisions," IIE, San Francisco CA. (December 10, 2014).
- Gholston, S. E. (Author & Presenter), Messimer, S. L. (Author), Dyas, S. (Author), Greenfield, E. (Author), Thotakura, S. (Author), Doughty, T. (Author), Ivey, R. (Author), Engineering Lean and Six Sigma Conference, "Data Analysis to Support Healthcare Decisions," IIE, Orlando, FL. (October 1, 2014).
- Sullivan, K. (Author), Tucker, B. (Author), Paxton, J. (Author & Presenter), Gholston, S. E. (Author), Messimer, S. L. (Author), Lyod, N. (Author), Siniard, J. (Author), Hays, M. Peggy (Author), Engineering Lean and Six Sigma Conference, "The University Paradox: How Academics and Research Can Thrive in the Lean Health Care Market," IIE, Orlando, FL. (October 1, 2014).
- Gholston, S. E. (Moderator), GEM GradLab, "Graduate School Voices from the Field," GEM Fellowship, Huntsville, AL. (September 13, 2014).
- Devezin, T. (Author & Presenter), Gholston, S. E. (Author), Messimer, S. L. (Author), Hays, M. Peggy (Author), Dyas, S. (Author), Greenfield, E. (Author), Thotakura, S. (Author), Doughty, T. (Author), Ivey, R. (Author), Lyon, M. (Author), 20th International Conference of Industrial Engineering and Management Systems, "Using Value Stream Mapping to Assess the Efficiency of an Emergency Department," IEMS, Cocoa Beach, FL. (March 26, 2014).
- Gholston, S. E. (Author & Presenter), Mayhall, S. (Author), Richard, S. (Author), Chadde, J. (Author), Mokashi, A. (Author), 56th Annual Transportation Research Forum, "Analyzing What Works Best for Transportation Education," Transportation Research Forum, Atlanta, GA. (March 12, 2014).
- Messimer, S. L. (Author & Presenter), Gholston, S. E. (Author), Hays, M. Peggy (Author), Dyas, S. (Author), Greenfield, E. (Author), Thotakura, S., Inspiring Lifelong Scholarship in Nursing, "Continuous Improvement of an Emergency Department using Interdisciplinary Team," Nursing Research, Huntsville, AL. (October 30, 2013).
- Hays, M. Peggy (Author & Presenter), Gholston, S. E. (Author), ICCH Conference, "Using Continuous Improvement to Improve Patient Satisfaction," ICCH, Montreal, Canada. (October 15, 2013).
- Gholston, S. E. (Author & Presenter), Antonison, M. (Author), Industrial Engineering Research Conference, "Assessment of the Baldrige Model," IIE, San Juan, Puerto Rico. (May 22, 2013).
- Sullivant, D. (Author & Presenter), Hays, M. Peggy (Author), Gholston, S. E. (Author), 19th International Conference of Industrial Engineering and Management Systems, "Applying

- Lean Six Sigma To Improve Safety in a Healthcare Organization," IEMS, Cocoa Beach, FL. (March 2013).
- Gholston, S. E. (Author & Presenter), Hays, M. Peggy (Author), Sigma Theta Tau Research Day, "A Joint Nursing and Engineering Effort in a Hospital Setting," Sigma Theta Tau, Huntsville, AL. (March 13, 2013).
- Shetty, S. (Author & Presenter), Conponation, P. (Author), Gholston, S. E. (Author), Industrial Engineering Research Conference, "A Proposed Model for Lean Assessment using Employee Perception," IIE, Reno, Nevada. (May 23, 2012).
- Shetty, S. (Author & Presenter), Conponation, P. (Author), Gholston, S. E. (Author), 18th International Conference of Industrial Engineering and Management Systems, "A Stepwise Method of using Exploratory Factor Analysis in creation of a Lean Assessment Strategy," IEMS, Cocoa Beach, FL. (March 28, 2012).
- Gholston, S. E. (Author), Carpenter, S. L. (Author), Utley, D. R. (Author), 18th International Conference of Industrial Engineering and Management Systems, "Assessing Team Development Across Time using A Lean Manufacturing Simulation," IEMS, Cocoa Beach, FL. (March 28, 2012).
- Shetty, S. (Author & Presenter), Conponation, P. (Author), Gholston, S. E. (Author), Utley, D. R., 17th International Conference of Industrial Engineering and Management Systems, "Assessing an Organization's Transition to Lean," IEMS, Cocoa Beach, FL. (2011).
- Shetty, S. (Author & Presenter), Conponation, P. (Author), Gholston, S. E. (Author), Industrial Engineering Research Conference, "Content Validation of an Assessment Tool of an Individual's Perception of Lean Implementation," IIE, Reno, Nevada. (2011).
- Gholston, S. E. (Author & Presenter), Brandofino, R. (Author), Rahman, M., Lean Educators Conference, "Integration of Lean Six Sigma into Industrial Engineering Curriculum," IIE, Huntsville, AL. (September 29, 2011).
- Gholston, S. E. (Author), Nicholls, G. (Author & Presenter), ASEE SE Section Annual Conference, "Assessing the Pro-STEM Impact of an Intensive Summer Program on Secondary Students' Interests in Transportation Careers," ASEE, Charleston, SC. (April 12, 2011).
- Gholston, S. E. (Author), Nicholas, G. (Author & Presenter), Anderson, M. D. (Author), 17th International Conference of Industrial Engineering and Management Systems, "Assessing the Relationship Between a Student's Residential Location and the Likelihood of entering a STEM Career," IEMS, Cocoa Beach, FL. (March 30, 2011).
- Sullivant, D. (Author & Presenter), Gholston, S. E. (Author), Wessels, W. R. (Author), 17th International Conference of Industrial Engineering and Management Systems, "Optimizing Availability Analysis using a Lean Six Sigma Process," IEMS, Cocoa Beach, FL. (March 30, 2011).
- Shetty, S. (Author & Presenter), Conponation, P. (Author), Gholston, S. E. (Author), Utley, D. R., 16th International Conference of Industrial Engineering and Management Systems, "Assessing an Organization's Transition to Lean," IEMS, Cocoa Beach, FL. (2010).
- Shetty, S. (Author & Presenter), Gholston, S. E. (Author), Conponation, P. (Author), Utley, D. R. (Author), Industrial Engineering Research Conference, "Assessing the extent of Lean Implementation in a Organization," IIE, Cancun, Mexico. (2010).
- Craycraft, C. (Author), Gholston, S. E. (Author & Presenter), 15th International Conference of Industrial Engineering and Management Systems, "Hands-on Training and Experience Provided Online: A Compromise of quality for the sake of convenience," IEMS, Cocoa Beach,

- FL. (2009).
- Antinson, M. (Author), Morris, A. (Author), Gholston, S. E. (Author & Presenter), 15th International Conference of Industrial Engineering and Management Systems, "Work Engagement: A Measure of Employee Motivation and Well-being in a Healthy Workforce," IEMS, Cocoa Beach, FL. (2009).
- Olague, H. (Author & Presenter), Gholston, S. E. (Author), International Conference on Software Engineering Research and Practice, "Program Understanding Through Indentation," SERP. (July 16, 2009).
- Virani, S. (Author & Presenter), Etzkorn, L. H. (Author), Gholston, S. E. (Author), Farrington, P. A. (Author), Utley, D. R. (Author), Fortune, J. L. (Author), 47th Annual ACM Southeast Conference, "Investigation of Domain Effects on Software," ACM, Clemson, SC. (March 21, 2009).
- Antinson, M. (Author), Gholston, S. E. (Author & Presenter), Morris, A. (Author), 14th International Conference of Industrial Engineering and Management Systems, "Measurement of Worker Motivation," IEMS, Cocoa Beach, FL. (March 12, 2008).
- Anderson, M. D. (Author & Presenter), Vuppalachchi, S. (Author), Gholston, S. E. (Author), Jones, S. (Author), Bricka, S. (Author), Transportation Research Board 84th Annual Meeting, "A Small Urban Community Application of an Internet-based Tool to Conduct a Non-traditional Transportation Survey," Journal of Transportation Research Board. (2007).
- Lyod, N. (Author & Presenter), Gholston, S. E. (Author), American Society of Engineering Management Conference, "Application of Lean Enterprise and Six Sigma as an Amalgamated Improvement Strategy," ASEM, Huntsville, AL. (October 28, 2006).
- Anderson, M. D. (Author & Presenter), Sharfi, K. (Author & Presenter), Gholston, S. E., Transportation Research Board 84th Annual Meeting, "A Small Urban Community Direct Demand Forecasting Model Using Multiple Linear Regression," Journal of Transportation Research Board. (2005).
- Gholston, S. E. (Author), Youngblood, A. D. (Author & Presenter), American Society of Engineering Management Conference, "Decision Making Using Estimated Utility Functions," ASEM, Alexandria, VA. (2004).
- Orlander, J. (Author & Presenter), Anderson, M. D. (Author), Gholston, S. E., Transportation Research Board 83rd Annual Meeting, "Evaluation of Network Preloads on Medium Sized Urban Travel Model," Journal of Transportation Research Board. (2004).
- Etzkorn, L. H. (Author & Presenter), Stein, C. (Author), Cox, G. (Author), Gholston, S. E. (Author), Utley, D. R. (Author), Farrington, P. A. (Author), 4th Annual NASA Office of Safety and Mission Assurance Software Assurance Symposium, "Computing Software Metrics from Design Documents," NASA OSMA, Morgantown, West Virginia. (July 22, 2004).
- Stein, C. (Author & Presenter), Etzkorn, L. H. (Author), Cox, G. (Author), Farrington, P. A., Gholston, S. E. (Author), Utley, D. R., Fortune, J. L., International Workshop on Software Audit and Metrics, "A New Suite of Semantic Metrics for Object-Oriented Software," International Workshop on Software Audit and Metrics, Porto, Portugal. (April 14, 2004).
- Stein, C. (Author & Presenter), Etzkorn, L. H. (Author), Utley, D. R. (Author), Farrington, P. A. (Author), Cox, G. (Author), Fortune, J. L. (Author), Gholston, S. E. (Author), 42nd Annual ACM Southeast Conference, "Computing Software Metrics from Design Documents," ACM, Huntsville, AL. (April 3, 2004).
- Gholston, S. E. (Author & Presenter), Youngblood, A. D. (Author), 10th International Conference

- of Industrial Engineering and Management Systems, "Improved Elicitation of Utility Functions for Multiple Criteria Decision Models," IEMS, Cocoa Beach, FL. (March 17, 2004).
- Ananthanarayanan, S. (Author), Gholston, S. E. (Author & Presenter), 10th International Conference of Industrial Engineering and Management Systems, "Quality Improvements to a Manufacturing Process Using Nontraditional Design of Experiments," IEMS, Cocoa Beach, FL. (March 17, 2004).
- Thompson, L. (Author), Gholston, S. E. (Author & Presenter), Youngblood, A. D. (Author), 11th International Conference of Industrial Engineering and Management Systems, "Application of Six Sigma to Improving ABET Process in an Engineering Program," IEMS, Cocoa Beach, FL. (March 17, 2004).
- Brothers, M. A. (Author), Gholston, S. E. (Author & Presenter), Utley, D. R., International Conference of Industrial Engineering and Management Systems, "Compare and Contrast Risk Management Implementation at Government Organizations," IEMS, Cocoa Beach, FL. (2002).
- Gholston, S. E. (Author & Presenter), Sarker, B. R. (Author), Farrington, P. A., American Society of Engineering Management Conference, "Quality Management, System Engineering, and Project Management: A Comparison," ASEM, Huntsville, AL. (2001).
- Utley, D. R. (Author & Presenter), Gholston, S. E. (Author), Farrington, P. A. (Author), International Conference of Industrial Engineering and Management Systems, "A Comparison of Worker Perceptions of Quality System Improvement in Service and Manufacturing Systems," IEMS, Cocoa Beach, FL. (2001).
- Utley, D. R. (Author & Presenter), Gholston, S. E. (Author), Farrington, P. A. (Author), American Society of Engineering Management Conference, "Survey of Worker Perceptions of Quality Systems Implementation for Service Organizations," ASME, Virginia Beach, VA. (2000).
- Harris, G. (Author & Presenter), Czarnecki, H. (Author), Gholston, S. E. (Author), Huntsville Simulation Conference, "Value Stream Mapping: The First Step in Lean Manufacturing Simulation," Huntsville Simulation, Huntsville, AL. (2000).
- Shetty, S. (Author & Presenter), Gholston, S. E. (Author), Compton, P. (Author), Utley, D. R. (Author), Industrial Engineering Research Conference, "Assessing the extent of Lean Implementation in a Organization," IIE, Cancun, Mexico. (2000).
- Utley, D. R. (Author), Gholston, S. E. (Author & Presenter), Farrington, P. A. (Author), Industrial Engineering Research Conference, "Survey of Worker Perceptions of Quality Systems Implementation for Service Organizations," IIE, Cleveland, Ohio. (2000).
- Batson, R. (Author), Gholston, S. E. (Presenter), Industrial Engineering Research Conference, "Precision Design and Monte Carlo Simulation to Optimize a Hardenability Predictor," IIE, Nashville, TN. (1995).
- Gholston, S. E. (Presenter), Batson, R. (Author), Alabama Quality Conference, "Precision Improvement of a Digital Ball Comparator Using Taguchi's Methods," ASQC, Huntsville, AL. (1994).
- Gholston, S. E. (Presenter), Batson, R. (Author), American Society for Quality Control Fall Technical Conference, "Case Study: Precision Improvement of a Digital Ball Comparator," ASQC, Birmingham, AL. (1994).

Contracts, Grants and Sponsored Research

Contract

Etz Korn, L. H. (Co-Principal), Gholston, S. E. (Principal), "Development User-friendly Estimation Tool for use by ALDOT Contracting Communities," Sponsored by ALDOT, State, \$165,305.00. (2012 - Present).

Gholston, S. E. (Co-Principal), Paxton, J. (Principal), Messimer, S. L. (Co-Principal), "UAH Lean Healthcare," Sponsored by Huntsville Hospital, Other, \$90,000.00. (May 15, 2014 - October 15, 2015).

Anderson, M. D. (Principal), Gholston, S. E. (Co-Principal), "Safety Concerns at Unwarranted Intersections," Sponsored by ALDOT, State, \$149,805.00. (May 8, 2014 - August 20, 2015).

Utle, D. R. (Co-Principal), Gholston, S. E. (Principal), "Protege Project for ALDoT Certified DBE," Sponsored by AL Dept of Transportation, Federal, \$271,000.00. (July 2014 - July 2015).

Etz Korn, L. H. (Co-Principal), Gholston, S. E. (Co-Principal), Rushing, J. (Co-Principal), "Automatically Determining Cause and Effect from Documents," Sponsored by U.S. Army SBIR, A11a-T010, Federal, \$150,000.00. (September 2010 - March 2011).

Grant

Gholston, S. E. (Supporting), Gaede, R. K. (Principal), English, J. M. (Co-Principal), Kulick, J. H. (Co-Principal), Coe, D. J. (Co-Principal), "RISE - Rapid Immersion Pathway into Software Engineering," Sponsored by NSF, Federal, \$605,872.00. (June 1, 2015 - May 31, 2020).

Gholston, S. E., "Academic Compatibility: Forming and Expanding a Community of Underrepresented Minority Engineering Scholars," Sponsored by Purdue, Federal, \$48,009.00. (August 1, 2015 - July 31, 2017).

Gholston, S. E. (Co-Principal), Anderson, M. D. (Principal), "AADT Estimation Methodology," Sponsored by ALDOT, State, \$175,826.00. (August 25, 2015 - August 24, 2016).

Gholston, S. E. (Co-Principal), Anderson, M. D. (Principal), "Crash Data Mining at Signalized Intersections," Sponsored by ALDOT, State, \$170,826.00. (May 8, 2015 - August 24, 2016).

Farrington, P. A. (Principal), Messimer, S. L. (Co-Principal), Gholston, S. E. (Co-Principal), Fahimi, F. (Co-Principal), Graves, S. J. (Co-Principal), "F/NSF/Collaborative Research: Planning Grant: I/UCRC for Advance Vehicle Manufacturing," Sponsored by NSF, Federal, \$11,500.00. (April 15, 2014 - March 31, 2016).

Gholston, S. E. (Co-Principal), Anderson, M. D. (Principal), "CFIRE Addressing MAP-21 Freight Objectives," Sponsored by ALDOT, State, \$37,463.00. (August 15, 2014 - December 31, 2015).

Gholston, S. E. (Principal), "CFIRE: Nationwide Best Practices of Implement Transportation Careers," Sponsored by ALDOT, State, \$33,686.00. (August 15, 2014 - December 31, 2015).

Carpenter, S. L. (Supporting), Gholston, S. E. (Supporting), Fonseca, D. (Co-Principal), Houser, R. (Principal), "Identification of brain locations for decision making under extremely high levels of stress through quantitative electroencephalograph (qEEG) and low frequency current stimulation tDCS," Sponsored by University of Alabama, Other, \$2,500.00. (January 2015 - November 1, 2015).

Etz Korn, L. H. (Principal), Utle, D. R. (Co-Principal), Gholston, S. E. (Co-Principal), Li, W. (Co-Principal), "SHF:Small:Collaborative Research: Finding Change and Error Prone Regions at Several Granularity Levels Using Both Traditional and Non-Traditional Software Metrics Suites," Sponsored by NSF, Federal, \$357,390.00. (October 1, 2012 - September 30, 2015).

Etzkorn, L. H. (Principal), Utley, D. R. (Co-Principal), Gholston, S. E. (Co-Principal), Li, W. (Co-Principal), "SHF:Small:Collaborative Research: Finding Change and Error Prone Regions at Several Granularity Levels Using Both Traditional and Non-Traditional Software Metrics Suites," Sponsored by NSF, Federal, \$357,390.00. (October 1, 2012 - September 30, 2015).

Gholston, S. E. (Co-Principal), Wessels, W. R. (Principal), "Reliability-Centered Maintenance Investigation to Reduce Life-Cycle Sustainability Costs for ALDOT Capitol Equipment," Sponsored by ALDOT, State, \$96,015.00. (2014).

Etzkorn, L. H. (Principal), Gholston, S. E. (Co-Principal), Aygun, R. S. (Co-Principal), Morris, A. (Co-Principal), Buenzli, W. (Co-Principal), "Multimedia-Based PROMIS Technology Center," Sponsored by NIH, Federal, \$2,269,354.00. (September 1, 2009 - August 31, 2012).

Etzkorn, L. H. (Co-Principal), Gholston, S. E. (Principal), Aygun, R. S. (Co-Principal), Kaiura, L. M. (Co-Principal), Buenzli, W. (Co-Principal), Rahman, M. (Co-Principal), "Patient-Reported Outcomes Measurement Information System Statistical Center," Sponsored by NIH, Federal, \$2,322,734.00. (September 1, 2009 - August 31, 2012).

Etzkorn, L. H. (Principal), Gholston, S. E. (Co-Principal), Utley, D. R. (Co-Principal), Aygun, R. S. (Co-Principal), "Software Engineering: Threshold Values for Object-Oriented Software Metrics in Particular Domains," Sponsored by SAIC/internal to UAH, Local, \$15,750.00. (August 2009 - March 2010).

Etzkorn, L. H. (Principal), Cox, G. (Co-Principal), Gholston, S. E. (Co-Principal), Utley, D. R. (Co-Principal), Farrington, P. A. (Co-Principal), "Semantic Metrics for Object-Oriented Design," Sponsored by NASA, Federal, \$232,315.00. (January 3, 2003 - December 31, 2005).

Other

Gholston, S. E. (Principal), "S/ALDOT/Protege Program for ALDOT Certified DBE," Sponsored by ALDOT, Federal, \$192,697.03. (December 10, 2012 - November 9, 2013).

Gholston, S. E. (Principal), "S/ALDOT/Protege Program for ALDOT Certified DBE," Sponsored by ALDOT, Federal, \$192,697.03. (December 10, 2012 - November 9, 2013).

Gholston, S. E. (Principal), "S/ALDOT/Protege Program for ALDOT Certified DBE," Sponsored by ALDOT, Federal, \$192,697.03. (December 10, 2012 - November 9, 2013).

Awards and Honors

Tau Beta Pi, Engineering. (May 15, 2015).

Best Paper, Transportation Research Board. (March 20, 2004).

Outstanding Graduate Student, ISEEM Department. (May 15, 1999).

Alpha Pi Mu, IIE. (March 15, 1993).

Intellectual Contributions in Submission

Refereed Journal Articles

Anderson, M., Wilson, J., Gholston, S. E. Evaluation of Origin-Destination Matrix Estimation Techniques to Support Aspects of Traffic Modeling. *Journal of Transportation Engineering*.

Research Currently in Progress

"Hospital ICU and MICU Capacity Simulation" (Planning).

In cooperation with Richard Ivey at HHS and with assistance of students from Dr. Gholston's class collection of data and building of simulation model to evaluate capacity in HHS ICU and MICU.

SERVICE

Consulting

Government, Prototype Integration Facility (ARMY), AMERDEC. (December 15, 2014 - November 15, 2015).

For Profit Organization, Listerhill Credit Union, Muscle Shoals, Alabama. (October 15, 2013 - September 15, 2015).

Awards and Honors

Service, Professional

Epsilon Mu Eta, American Society of Engineering Management. (March 15, 2004).

Service, University

Martin Luther King, Jr. Award, UAH Minority Graduate Student Association. (February 20, 2007).