

NICHOLAS LOYD, PH. D.

256.468.2677 | NICHOLAS.LOYD@UAH.EDU

Education

PhD- Industrial Engineering	2017
The University of Alabama in Huntsville	
Dissertation: " <i>Analysis of The Use of Employee Perception to Assess the Implementation of Lean Based on the Toyota Production System and Toyota Way</i> "	
MSE- Engineering Management	2006
The University of Alabama in Huntsville	
Capstone: " <i>Application of Lean Enterprise and Six Sigma as an Amalgamated Improvement Strategy</i> "	
BSE- Industrial and Systems Engineering	2000
The University of Alabama in Huntsville	
Summa Cum Laude	

Teaching Experience

CLINICAL ASSISTANT PROFESSOR	
EM 600 Engineering Management Theory	2019-Present
The University of Alabama in Huntsville College of Engineering	
Developed curriculum and taught foundational course in Engineering Management graduate program	
Average SIE Composite Score: 4.7/5	
ISE 324 Work Design	2019-Present
The University of Alabama in Huntsville College of Engineering	
Developed curriculum aligning with industry needs, including Lean Operations Management Systems	
Average SIE Composite Score: 4.93/5	
ADJUNCT INSTRUCTOR	
ISE 324 Work Design	2010-2018
The University of Alabama in Huntsville College of Engineering	
Developed curriculum aligning with industry needs, including Lean Operations Management Systems	
Average SIE Composite Score: 98.14/100	
MSC 605 Operations Management	2015-2017
The University of Alabama in Huntsville College of Business	
Chosen by Dean of Business as select faculty for the inaugural Supply Chain Management Certificate program for U.S. Army Materiel Command Cohort program	
Average SIE Composite Score: 98.40/100	
MSC 385 Operations Analysis	2007, 2009-2015
The University of Alabama in Huntsville College of Business	
Average SIE Composite Score: 95.84/100	
ISE 428-429 Systems Analysis and Design I & II (Senior Design)	2008-2010
The University of Alabama in Huntsville College of Engineering	
Instructed and mentored senior design student teams on real-world projects	
Average SIE Composite Score: 98.18/100	

Research and Work Experience

- The University of Alabama in Huntsville** **2000-Present**
 I have served as Principal Investigator for \$7.4M in research awards in the following roles:
- Director, Center for Management and Economic Research (CMER)** **2015-Present**
- CMER operates out of the College of Business
 - Leads center based on strategic plan goals that are aligned with college (College of Business) and university goals
 - Manages administrative aspects such as annual budgets, assessing hiring needs, performance evaluations, and reporting to University administration
 - Pursues and secures client contracts and research grant funding that supports the mission of the CMER
 - Identifies opportunities to integrate the university student resources into CMER activities in an effort to offer real-world experience and experiential learning for the students
- Director, Alabama Technology Network (ATN) Huntsville Center** **2011-Present**
- Manages administrative aspects such as annual budgets, negotiating annual funding levels, assessing hiring needs, and coordinating client impact survey reporting with the corporate Alabama Technology Network office, which serves as the state's Manufacturing Extension Partnership (MEP) entity
 - Works with small and medium-sized businesses by delivering services such as strategic planning, growth services, innovation, continuous improvement, and quality systems implementation
- Research Associate - Research Scientist VI, The University of Alabama in Huntsville** **2000-2015**
- Coaches and guides executive management of small and medium-sized companies in identifying strategic and continuous improvement opportunities
 - Develops and leads delivery of innovation, strategy deployment, leadership, sustainability, and continuous improvement services to client companies as part of the Alabama Technology Network (ATN), the state's Manufacturing Extension Partnership (MEP)
 - Manages projects with client companies resulting in retention and/or growth of sales, retention and/or creation of jobs, and improvements in quality and on-time delivery to customers
 - Has facilitated over 300 projects globally in a wide variety of industries (including automotive, aerospace, and biomedical manufacturing, government organizations and contractors, seaports, and service sectors) in the areas of strategic planning, innovation, and continuous improvement
 - Facilitates cross-functional teams of people from all levels of the organization, guiding them through continuous improvement and scientific problem-solving
- Triad Martial Arts Academy, Cullman, AL** **2013-2016**
- Provided venture capital for new ownership
 - Developed and managed ownership transition strategy
 - Served as Chief Operating Officer (COO) during ownership transition
- Summary of Professional Expertise**
- Experienced in facilitating the creation of, and managing to, strategic plans and goals
 - Experienced in coaching for organizational transformation and value stream management
 - Excels at people development at all levels of an organization
 - Has vast experience in Toyota Business Systems (Toyota Production System and Toyota Way culture)
 - Excels at developing curriculum and teaching content
 - Has a strong passion for learning and knowledge transfer
 - Was one of only four professionals chosen in the state to develop and lead the Alabama Operations Management Institute (AOMI), a program created by the Economic Development Partnership of Alabama (EDPA) to strengthen executive leadership in Alabama manufacturing companies

Skills, Credentials, and Service

Professional and Community Service

- ISEEM Graduate Faculty- provides ad hoc advice on graduate research for colleagues at UAH and Auburn University
- Institute of Industrial and Systems Engineers (IISE)- Member
- American Society of Engineering Management (ASEM)- Member
- Alabama Automotive Manufacturer's Association, Member of Young Professionals Committee
- Brazilian Jiu Jitsu instructor, Triad Martial Arts Academy (2003 – 2015)
- Canine rescue and fostering volunteer (2013- Present) – Madison Animal Rescue Foundation, Bullies to the Rescue, Alabama Boston Terrier Rescue

Professional Training and Certifications

- MIT Sloan Executive Education Internet of Things: Business Implications Online Short Course certificate (2019)
- Toyota Production System Supplier Center for Top Management certificate (2015)
- Innovation Engineering Black Belt certification (October 2014)
- Lean Six Sigma Black Belt Certification (December 2014)
- Lean Advancement Initiative (LAI) Lean Healthcare certified trainer (April 2014)
- Eureka! Ranch Innovation College (December 2013)
- Innovation Engineering Leadership Institute Certificate of participation (April 2012)
- Lean Enterprise Value Supply Chain facilitator- MIT Lean Advancement Initiative (June 2011)
- Toyota Kata Coach for Improvement and Coaching Kata (2011)
- Certified Lean Manufacturing Bronze Practitioner, Society of Manufacturing Engineers and the Association for Manufacturing Excellence (December 2009)
- Certified Practical Energy Practitioner by Dr. Joe Davis, PE, CEM (July 2009)
- Certified by the National Institute of Standards and Technology (NIST) as a trainer and practitioner in full catalog of Lean Enterprise services (2001 – 2009)
- Certified by the Massachusetts Institute of Technology's (MIT) Lean Advancement Initiative as a Lean Academy Instructor (January 2006)
- NIST MEP Certification in Coaching for Transformation (July 2005)
- Six Sigma Green Belt certified by IISE (September 2002)
- Sandler Sales 2-day training certificate (November 2002)

Awards, Honors, and Achievements

- Brown Belt, Brazilian Jiu Jitsu, Triad Martial Arts Academy 2015
- U.S. Army THAAD Missile Project Office Certificate of Appreciation 2003
- Alabama Technology Network Innovator of the Year 2003
- Alabama Technology Network Rookie of the Year 2001

Publications and Presentations

Refereed Journal Articles

- N. Loyd, G. Harris, S. Gholston, D. Berkowitz, 2019. "Development of Lean Assessment Tool and Measuring the Effect of Culture from Employee Perception", Journal of Manufacturing Technology Management
- N. Loyd. 2018. "Content Validation of an Assessment Tool to Measure Lean Deployment Based on the Toyota Production System and Toyota Way" International Journal of Lean Enterprise Research.
- N. Loyd, 2016. "Empirical Study of Toyota Motor Corporation Relative to the Good to Great Framework," refereed article published in the Journal of Management Research, Vol. 8 No. 3.
- N. Loyd and S. Gholston, 2016. "Implementation of a Plan-Do-Check-Act Pedagogy in Industrial Engineering Education," refereed article published in the Journal of Engineering Education, Vol. 32 No. 3(A). pp 1260-1267.

- N. Loyd, L. Jennings, J. Siniard, A. Holden, G. Rittenhouse, and M. Spayd, 2009. "The Application of Lean Enterprise to Improve Seaport Operations," refereed article published in the Transportation Research Record, No. 2100, p 29-37

Peer Reviewed Conference Papers

- N. Loyd, S. Gholston, B. Schroer, S. Gunter. 2019. "Survey Measuring Employee Perception of the Degree of the Toyota Culture in a Successful Lean Production System Implementation". Peer reviewed paper accepted and presented at AlaSim 2019, Huntsville, AL.
- N. Loyd, S. Gholston, B. Schroer. 2019. "Simulation: One of Many Lean Tools Used for Lean Training and Implementation". Peer reviewed paper accepted and presented at AlaSim 2019, Huntsville, AL.
- S. Gholston, N. Loyd, M. Aykanmbi, 2018. "Assessing the Maturity of Your Lean Six Sigma Implementation". Peer Reviewed Honorable Mention Best Paper, Engineering Lean Six Sigma Conference, Atlanta, GA.
- N. Loyd, B. Schroer, S. Gunter, D. Moeller. 2018. "Simulation as a Tool in Analyzing Manufacturing Process Variability". Peer reviewed paper accepted and presented at AlaSim 2018, Huntsville, AL.
- A. Holden, N. Loyd, L. Blanchard. 2011. "A Practical and Theoretical Approach to Sustainability Using Process Improvement," peer reviewed conference paper presented at the Industrial Engineering Research Conference
- N. Loyd, G. Harris, L. Blanchard. 2010. "Integration of A3 Thinking as an Academic Communication Standard," refereed conference paper presented at the Industrial Engineering Research Conference
- G. Harris, Y. Bao, T. Landry, N. Loyd, A. Holden, and L. Blanchard, 2010. "Management and kaizen team attitudes and lean/clean project improvement sustainability," refereed conference paper at the American Society of Engineering Management Annual Conference

Other Publications and Conference Papers

- N. Loyd, 2017. *Analysis of the Use of Employee Perception to Assess the Implementation of Lean Based on the Toyota Production System and Toyota Way* (Doctoral Dissertation). The University of Alabama in Huntsville.
- N. Loyd, 2006. "The Application of Lean Enterprise and Six Sigma as an Amalgamated Improvement Strategy," Master's Capstone
Published as Chapter 1 in the book *Lean Six Sigma: An Introduction*, (Icfai University Press, 2008)
Published as Chapter 3 in the book *Lean Management: Concepts and Industry Perspectives* (Icfai University Press, 2007)
Conference paper presented at the 2006 American Society of Engineering Management Annual Conference
- N. Loyd and M. McNairy, 2003. "Process Model Simulation to Show Benefits of Kanban/Pull Systems," conference paper presented at the Huntsville Simulation Conference
- N. Loyd, 2002. "Simulation of Information Systems in a Lean Factory," conference paper presented at the Huntsville Simulation Conference
- N. Loyd, 2001. "Improved Process for Welding Aluminum Skins onto Body Frames," published in the Journal of Industrial Engineering Design
- H. Czarnecki, N. Loyd. 2001. "Simulation of Lean Assembly Line for High Volume Manufacturing". Conference paper presented at the Huntsville Simulation Conference.
- B. Schroer and N. Loyd, 2000. "Use of Discrete Event Simulation for Manufacturing Systems Training," Conference paper presented at the Southeastern Simulation Conference

Conference Presentations

- Dyas, S., Gholston S., and Loyd, N., "Factors Affecting Decision Making and Relation to Error-free Performance", IISE Engineering Lean Six Sigma Conference, September 2019, Houston, TX.
- Gholston, S. E., Loyd, N., and Ayokanmbi, M., "Expanding on the Assessment of Your Lean Six Sigma Maturity," IISE Annual Conference & Exposition, May, 2019.
- "Does the Toyota Way Culture Affect the Success of Lean Production System Implementation?" Lean Six Sigma Conference, November 2017, Huntsville, AL.
- "The Effect of Culture on Successful Implementation of Lean Production Systems." Keynote, Applied Lean Leadership Conference, May 2017, Huntsville, AL.
- "Measuring the Effects of Culture on the Implementation of Lean." IISE Engineering Lean Six Sigma Conference, September 2016, San Antonio, TX.
- "Development of a Tool to Measure the Effects of Culture on Lean Production Systems." IISE Annual Conference. May 2016, Anaheim, CA.

- *“Lean Enterprise System to Improve Seaport Operations,”* presentation at the 2010 Industrial Engineering Research Conference
- *“Modern Continuous Improvement Methods to Improve Seaport Velocity and Productivity,”* presentation at the 2009 American Association of Port Authorities Terminal Managers Seminar and the 2009 American Association of Port Authorities Port Operations, Safety, and Information Technology Seminar
- *“Lean Enterprise at Seaports,”* presentation at the 2009 Port Productivity Conference
- *“Principles of Lean in the Office,”* presentation at the 2004 Alabama Quality Award Ceremony
- *“Value Stream Mapping in Office Processes,”* presentation at the 2003 Alabama Automotive Manufacturers Association quarterly meeting
- *“The Power of Hands-on Training for Lean Enterprise,”* presented at the 2002 AMCOM Lean Conference