NICHOLAS LOYD, PH. D.

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE
INDUSTRIAL AND SYSTEMS ENGINEERING AND ENGINEERING MANAGEMENT
256.824.6257 | NICHOLAS.LOYD@UAH.EDU

EDUCATION

Ph.D. Industrial Engineering **2017**

The University of Alabama in Huntsville College of Engineering

Dissertation: "*Analysis of The Use of Employee Perception to Assess the Implementation of Lean Based on the Toyota Production System and Toyota Way*"

MSE Engineering Management **2006**

The University of Alabama in Huntsville College of Engineering

Capstone: "*Application of Lean Enterprise and Six Sigma as an Amalgamated Improvement Strategy*"

BSE Industrial and Systems Engineering **2000**

The University of Alabama in Huntsville College of Engineering

TEACHING EXPERIENCE

CLINICAL ASSISTANT PROFESSOR, ENGINEERING MANAGEMENT **2019-PRESENT**

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE | COLLEGE OF ENGINEERING | ISEEM DEPARTMENT

EM 760 Engineering Organization Structures and Systems (2020-2022)

Developed curriculum and taught principles of organizational design in traditional, hybrid and fully online formats

EM 747(661) Strategic Engineering Management (2020-Present)

Developed curriculum and taught core principles of strategic thinking, strategic planning, and strategic leadership in traditional, hybrid, and fully online formats

EM 660 Engineering Management Theory (2019-Present)

Developed curriculum and taught foundational theory of management for engineering and technical professions in traditional, hybrid, and fully online formats

ISE 428-429 Systems Analysis and Design I & II (2022-Present)
Instruct and mentor senior design student teams for senior capstone course; students execute real-world projects at manufacturing companies including Mazda Toyota Manufacturing, Blue Origin, Navistar Diesel Engine, Polaris, and Northrop Grumman. I developed additional classroom curriculum to teach advanced problem skills so that students can better facilitate their projects.

ISE 324 Work Design (2019-2023)
Developed curriculum aligning with industry needs, including Lean Six Sigma production and operations management systems; utilize hands-on Lean simulations to reinforce key learning points; developed fully online format during COVID-19 pandemic

ADJUNCT INSTRUCTOR, INDUSTRIAL ENGINEERING **2007-2018**
THE UNIVERSITY OF ALABAMA IN HUNTSVILLE | COLLEGE OF ENGINEERING | ISEEM DEPARTMENT

ISE 324 Work Design (2010-2018)
Developed curriculum aligning with industry needs, including Lean Six Sigma production and operations management systems; utilized hands-on Lean simulations to reinforce key learning points

ISE 428-429 Systems Analysis and Design I & II (2008-2010)
Instructed and mentored senior design student teams for senior capstone course; students executed real-world projects at manufacturing companies

ADJUNCT INSTRUCTOR, OPERATIONS MANAGEMENT **2007-2018**
THE UNIVERSITY OF ALABAMA IN HUNTSVILLE | COLLEGE OF BUSINESS | MSC DEPARTMENT

MSC 605 Operations Management (2015-2017)
Chosen by Dean of the College of Business as select faculty for the inaugural Supply Chain Management Certificate program for U.S. Army Materiel Command Cohorts; integrated Lean Six Sigma principles into operations management curriculum

MSC 385 Operations Analysis (2007, 2009-2015)
Integrated Lean Six Sigma principles into operations management curriculum

RESEARCH & PROFESSIONAL EXPERIENCE

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE **2000-PRESENT**

Served as Principal Investigator for over $7M 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 goals aligned with college and university goals strategic plans
- Manages administrative aspects such as annual budgets, assessing hiring needs, performance evaluations, and reporting to University administration
- Pursues and secures client contracts and grant funding that support the mission of 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 ATN office, which serves as the state of Alabama's Manufacturing Extension Partnership (MEP) entity
- Works with small and medium-sized businesses by delivering professional services such as leadership coaching and training, strategic planning, continuous improvement training and facilitation, innovation management, and quality systems implementation

Research Associate/Research Scientist (2000-2015)

- Coached and guided executive management of small and medium-sized companies in identifying strategic and continuous improvement opportunities
- Developed and led 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)
- Managed 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
- 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, Lean production, and Six Sigma

- Facilitated cross-functional teams of people from all levels of the organization, guiding them through continuous improvement (kaizen) 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 principal operating manager during ownership transition
- Served as instructor of Brazilian Jiu Jitsu, Mixed Martial Arts, and Women's Fitness

CREDENTIALS

PROFESSIONAL TRAINING AND CERTIFICATIONS

- Certified Professional in Engineering Management, ASEM (Cert. # 17082020CPEM0001)
- Intro to Problem Solving, Lean Enterprise Institute (2023)
- Problem Definition Practice, Lean Enterprise Institute (2023)
- OSHA 10-Hour, General Industry (2020)
- Toyota Kata Online Coaching and Improvement Kata Basics Course (2020)
- 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 participation (April 2012)
- Lean Enterprise Value Supply Chain facilitator- 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: Value Stream Mapping, 5S, Continuous Flow, Kanban, Quick Changeover/SMED, Total Productive Maintenance, Lean 101 (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

- IISE Operational Excellence Division Teaching Award 2023
- UAH College of Engineering Outstanding Teaching Award 2022
- 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

SERVICE

UNIVERSITY, COLLEGE, AND DEPARTMENT SERVICE (ACTIVE)

- Director, Center for Management and Economic Research (2015-Present)
- UAH Graduate Council, College of Engineering Representative (2021-Present)
- UAH Student Conduct Board Graduate Studies Representative (2023-Present)
- Engineering Management Graduate Program Lead, UAH ISEEM (2019-Present)
- Epsilon Mu Engineering Management Honor Society Advisor, UAH ISEEM (2021-Present)
- ISEEM Graduate Committee (2021-Present)

PROFESSIONAL SERVICE AND MEMBERSHIPS (ACTIVE)

- Director, Alabama Technology Network Huntsville Center (2011-Present)
- Gener8or Huntsville gBeta Startup Mentor (2023-present)
- International Journal of Lean Six Sigma, Reviewer
- Institute of Industrial and Systems Engineers 2022 Annual Conference and Expo, Paper reviewer
- Institute of Industrial and Systems Engineers (IISE), Member since 2018
- American Society of Engineering Management (ASEM), Member since 2018
- Alabama Automotive Manufacturer's Association (AAMA), Committee Member, Young Professionals and Industry Training

DISSERTATION COMMITTEES

CONCLUDED

- Jonathan Hill, An Empirical Evaluation of the Baldrige Performance Excellence Program Framework Using Florida Applicant Data, The University of Alabama in Huntsville, Fall 2023. Research Advisor.
- Ashley Yarbrough, Data and Information Flow Improvements in Manufacturing Systems, Auburn University, Fall 2022. Committee member.

- Joel Brawner, The Effects of Lean Manufacturing on Occupational Safety and Ergonomics, Auburn University, Fall 2022. Committee member.
- Zhengyin Huang, Study of the Use of Employee Perception to Assess Lean Adoption Based on the Toyota Production System and Toyota Way Model in the Chinese Automobile Industry, Auburn University, Fall 2019. Committee member.

ACTIVE

- Jordan Lowe, Committee Chair and Research Advisor
- Justin Brown, Committee Chair and Research Advisor
- Jason Parcus, Committee Chair and Research Advisor
- Roger Bailey, Committee Chair and Research Advisor
- Scott Thomas, Committee Chair and Research Advisor
- Jordan Chambers, Committee Chair and Research Advisor
- Ford Luttrell, Committee Chair and Research Advisor
- Peter Oyewale, Committee Chair and Research Advisor
- Monica Sartain, Committee Chair
- Kingsley Usianeneh, Committee member
- Taylor Yeazitzis, Committee member

PUBLICATIONS AND SCHOLARLY CONTRIBUTIONS

Refereed Journal Articles

- Couch, A. C., & Loyd, N. J. (2023). Internal and External Precursors to Favorable Adoption of Industry 4.0 Technologies. *The Journal of Management and Engineering Integration*, *16*, Article 2. https://doi.org/10.62704/10057/25982
- Yarbrough, A., Harris, G., Loyd, N., & Purdy, G. (2022). "Developing Taiichi Ohno's Mental Model for Waste Identification in Nontraditional Applications." ASME Open Journal of Engineering. https://doi.org/10.1115/1.4054037
- Huang, Z., Harris, G., and Loyd, N. (2021), "An Improved Lean Assessment Based on Employee Perception", Journal of Manufacturing Technology Management. https://doi.org/10.1108/JMTM-04-2020-0178.
- Loyd, N., Harris, G., Gholston, S. and Berkowitz, D. (2020), "Development of a lean assessment tool and measuring the effect of culture from employee perception", Journal of Manufacturing Technology Management, Vol. 31 No. 7, pp. 1439-1456. https://doi.org/10.1108/JMTM-10-2019-0375.

- Loyd, N. (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, Vol. 2, No. 3, DOI: 10.1504/IJLER.2018.093636.
- Loyd, N. (2016), *"Empirical Study of Toyota Motor Corporation Relative to the Good to Great Framework,"* Journal of Management Research, Vol. 8 No. 3, https://doi.org/10.5296/jmr.v8i3.9374.
- Loyd, N. and Gholston, S. (2016), "*Implementation of a Plan-Do-Check-Act Pedagogy in Industrial Engineering Education,"* International Journal of Engineering Education, Vol. 32 No. 3(A). pp 1260-1267.
- Loyd, N., Jennings, L., Siniard, J., Holden, A., Rittenhouse, G. and Spayd, M. (2009), *"The Application of Lean Enterprise to Improve Seaport Operations*," Transportation Research Record, No. 2100, p 29-37, DOI 10.31412F2100-04.

Conference Papers

- Kumar, V. V., Sahoo, A., Kumar, R., & Loyd, N. J. (2024, July). Public Healthcare Informatics for COVID-19 from Social Media Data. *46th Annual International Conference of the IEEE Engineering in Medicine & Biology Society.*
- Hill, J., Gholston, S. E., & Loyd, N. J. (2023, Spring). Insights from an Empirical Evaluation of the Baldrige Performance Excellence Program *IISE Annual Conference*.
- Couch, A., Loyd, N. J., & Tenhundfeld, N. L. (2023, Spring). A Case on Integrating Industry 4.0 and Human Factors Engineering. *IISE Annual Conference*.
- Couch, A., & Loyd, N. J. (2022). Gaussian Mixture Model and Bayesian Information Criterion in a Stochastic Demand System. *AlaSim Modeling and Simulation Conference 2022*.
- Couch, A. C., Loyd, N. J., & Messimer, S. L. (2022). Applying Performance Metrics and Layout Design to Real Systems. *IISE Lean Six Sigma and Data Science Conference*.
- Tenney, C., Loyd, N. J., & Sheikhrezaei, K. (2022, May). "*Application of Lean Six Sigma Methodology to the Industrial & Systems and Engineering Management Graduate Admissions Process"*. *IISE Annual Conference and Expo 2022*.
- Loyd, N., Gholston, G., Schroer, B., Gunter, S. (2019), "*Survey Measuring Employee Perception of the Degree of the Toyota Culture in a Successful Lean Production System Implementation*". Peer reviewed paper, proceedings of AlaSim 2019, Huntsville, AL.
- Loyd, N., Gholston, S., Schroer, B. (2019), "*Simulation: One of Many Lean Tools Used for Lean Training and Implementation*". Peer reviewed paper, proceedings of AlaSim 2019, Huntsville, AL.

- Gholston, G., Loyd, N,. Aykanmbi, M. (2018), "*Assessing the Maturity of Your Lean Six Sigma Implementation*". Peer Reviewed Honorable Mention Best Paper, Engineering Lean Six Sigma Conference, Atlanta, GA.
- Loyd, N., Schroer, B., Gunter, S., Moeller, D (2018), "*Simulation as a Tool in Analyzing Manufacturing Process Variability*". Peer reviewed paper, proceedings of AlaSim 2018, Huntsville, AL.
- Holden, A., Loyd, N., Blanchard, L. (2011), *"A Practical and Theoretical Approach to Sustainability Using Process Improvement,"* Peer reviewed paper, proceedings of the Industrial Engineering Research Conference, Reno, NV.
- Loyd, N., Harris, G., Blanchard, L. (2010), *"Integration of A3 Thinking as an Academic Communication Standard,"* Peer reviewed paper, proceedings of the Industrial Engineering Research Conference, Cancun, MX.
- Harris, G., Bao, Y., Landry, T., Loyd, N., Holden, A., and Blanchard, L. (2010), *"Management and kaizen team attitudes and lean/clean project improvement sustainability,"* Peer reviewed paper, proceedings of American Society of Engineering Management Annual Conference, Fayetteville, AK.
- Loyd, N. and McNairy, M. (2003), *"Process Model Simulation to Show Benefits of Kanban Systems*," Peer reviewed paper, proceedings of the Huntsville Simulation Conference, Huntsville, AL.
- Loyd, N. (2002), *"Simulation of Information Systems in a Lean Factory*," Peer reviewed paper, proceedings of the Huntsville Simulation Conference, Huntsville, AL,
- Czarnecki, H and Loyd, N. (2001), "*Simulation of Lean Assembly Line for High Volume Manufacturing*". Peer reviewed paper, proceedings of the Huntsville Simulation Conference, Huntsville, AL.
- Schroer, B. and Loyd, N. (2000), *"Use of Discrete Event Simulation for Manufacturing Systems Training*," Peer reviewed paper, proceedings of Southeastern Simulation Conference, Huntsville, AL.

Other Scholarly Publications and Chapters

- Loyd, N. (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.
- Loyd, N. (2006), *"The Application of Lean Enterprise and Six Sigma as an Amalgamated Improvement Strategy*," Master's Capstone, The University of Alabama in Huntsville
    - 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)

- Loyd, N. (2001), *"Improved Process for Welding Aluminum Skins onto Body Frames*," Journal of Industrial Engineering Design

Conference Presentations

- Gholston, S., Loyd, N. J., Pham, H. T., & St. John, C. (2024). Review of the new Baldrige Organizational Assessment Process American Society for Engineering Management 2023 International Annual Conference and 44th Annual Meeting. (Accepted)
- Brutofsky, T., Loyd, N. J., & McKenzie, W. (2024). Utilizing Augmented Reality (AR) for Remote Subject Matter Expertise *American Society for Engineering Management 2023 International Annual Conference and 44th Annual Meeting*. (Accepted)
- Wooley, A. C., Thomas, T., Loyd, N. J., & Chen, H. (2024). Enhancing Industrial & Systems Engineering Education with Smart Factory CPS Integration *IISE Annual Conference*.
- Bermudez, Y., Chen, H., & Loyd, N. J. (2023). The Use of Smart Factory Laboratory to Demonstrate Digital Manufacturing Capabilities in Industrial and Systems Engineering. *RAM Training Summit: Driving Toward Digital*.
- Loyd, N. J., Gholston, S. E., & Wang, S. (2023). The sustainable factors driving industrial revolutions for engineering management *American Society for Engineering Management 2023 International Annual Conference and 44th Annual Meeting*.
- Hargett, T., Rodarte, K., Paxton, J., Tucker, B., & Loyd, N. J. (2023). Development of an Organizational Sustainability and Resiliency Roadmap. *American Society for Engineering Management 2023 International Annual Conference and 44th Annual Meeting*.
- Loyd, N. J., & Couch, A. (2023). Analysis of Industry 4.0 Through the Lens of Previous Industrial Revolutions. *IISE Annual Conference and Expo 2023*.
- Gholston, S. E., Menon, V., Wright, N., Loyd, N. J., & Davis, T. (2023). Assessment of Supply Chain Management in High-Performing Organizations using Qualitative Data Analytics. *The International Conference on Industry, Engineering, and Management Systems (IEMS)*.
- Couch, A. C., & Loyd, N. J. (2023). Internal and External Precursors to Favorable Adoption of Industry 4.0 Technologies. *The International Conference on Industry, Engineering, and Management Systems (IEMS)*.
- Loyd, N. J. (2022). Pathway to an Academic Lean Healthcare Course. *The 28th International Conference on Industry, Engineering, and Management Science*.
- Loyd, N. J., Barnes, D., & Burns, L. A. (2021, November). The Next Evolutionary Step for Toyota's Culture of Experimentation. In *Decision Science Institute Annual Conference*. Decision Science Institute.

- Loyd, N. J., Gholston, S. E., Messimer, S. L., Ayokanmbi, M., & Harris, G. (2021, October). Modifying a Lean Supply Chain Training Simulation for Industry 4.0 Applications. In *American Society for Engineering Management 2021 International Annual Conference and 42nd Annual Meeting*. ASEM.
- Gholston, S. E., Loyd, N. J., Messimer, S. L., & Ayokanmbi, M. (2021, October). Using Data Science to Improve Organization Performance. In *American Society for Engineering Management 2021 International Annual Conference and 42nd Annual Meeting*. ASEM.
- Hill, J., Gholston, S. E., Menon, V., Loyd, N. J., & Mesmer, B. L. (2021, September). Empirical Analysis of Data Science and Operational Excellence. In *IISE Lean Six Sigma and Data Science Conference*. IISE.
- 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.
- Loyd, N. (2017), *"Does the Toyota Way Culture Affect the Success of Lean Production System Implementation?"* Lean Six Sigma Conference, Huntsville, AL.
- Loyd, N. (2017), *"The Effect of Culture on Successful Implementation of Lean Production Systems."* Keynote, Applied Lean Leadership Conference, Huntsville, AL.
- Loyd, N. (2016), *"Measuring the Effects of Culture on the Implementation of Lean*." IISE Engineering Lean Six Sigma Conference, San Antonio, TX.
- Loyd, N., Gholston, S., and Farrington, P. (2016), *"Development of a Tool to Measure the Effects of Culture on Lean Production Systems*." IISE Annual Conference, Anaheim, CA.
- Loyd, N. (2010), *"Lean Enterprise System to Improve Seaport Operations,"* presentation at the Industrial Engineering Research Conference, Cancun, MX.
- Loyd, N. and Siniard, J. (2009), *"Modern Continuous Improvement Methods to Improve Seaport Velocity and Productivity,"* presentation at the American Association of Port Authorities Terminal Managers Seminar and American Association of Port Authorities Port Operations, Safety, and Information Technology Seminar, Seattle, WA.
- Loyd, N. and Siniard, J. (2009), *"Lean Enterprise at Seaports,"* AAPA Port Productivity Conference, Long Beach, CA.
- Loyd, N. (2004*), "Principles of Lean in the Office*," Alabama Quality Award, Tuscaloosa, AL.
- Loyd, N. (2003), *"Value Stream Mapping in Office Processes*," Alabama Automotive Manufacturers Association quarterly meeting, Birmingham, AL.

- Loyd, N. (2002), *"The Power of Hands-on Training for Lean Enterprise,"* AMCOM Lean Conference, Huntsville, AL.

Advised Student Poster Presentations

- Stokes, L., & Carr, K. (2025, March). International Gear Line Subassembly Station Improvement. In N. J. Loyd (Ed.), *2025 UAH Research Horizons*.
- Kacerek, E., & Scileppi, C. (2025, March). Optimizing Supply Chain Efficiency: Coating Process Challenges through In-house Solutions at Tenneco/Federal Mogul. In N. J. Loyd (Ed.), *2025 UAH Research Horizons*.
- Landberg, J., & Dodd, A. (2025, March). An Analysis of Process Optimization and Labor Reallocation with its Effects on Efficiency in the Automotive Industry. In N. J. Loyd (Ed.), *2025 UAH Research Horizons*.
- Adair, C., & Sumur-Zuniga, B. (2025, March). Process Improvement Through Standardization and Layout Design. In N. J. Loyd (Ed.), *2025 UAH Research Horizons*.
- Womack, L., & Faulkner, T. (2025, February). Transmission Main Shaft Split Gear Shim Selection. In N. J. Loyd (Ed.), *2025 E-Week Engineering Showcase*.
- Spuhl, D., & Espino, M. (2025, March). Optimizing the Front Fender Jig for Efficiency at Mazda Toyota Manufacturing. In N. Loyd (Ed.), *2025 E-Week Engineering Showcase*.
- Stokes, L., & Carr, K. (2025, February). International Gear Line Subassembly Station Improvement. In N. J. Loyd (Ed.), *2025 E-Week Engineering Showcase*.
- Centers, H., & Marquez, L. (2024, March). Hit the Brakes for Goodness Sake: Quality Assurance to Prevent Brake Failure in Automotive Assembly. In N. Loyd (Ed.), *2024 UAH Research Horizons*
- Nuncio, M., & Meads, C. (2024, March). Laser Gauge Measurement Tools Analysis in Body Weld. In N. Loyd (Ed.), *2024 UAH Research Horizons*.
- Wise, H., & Wilson, S. (2024, March). Countering Material Handling Wastes in Diesel Engine Production. In N. Loyd (Ed.), *2024 UAH Research Horizons*.
- Foutch, W., & Grimm, M. (2024, February). Application of Lean Manufacturing and Line Balancing in Navistar Big Bore Final Assembly. In N. J. Loyd (Ed.), *2024 UAH Engineering Showcase*.
- Eldeeb, A., & Tokhirov, I. (2024, February). Changeover Reduction on Mobile SCR2 Line. In N. J. Loyd (Ed.), *2024 UAH Engineering Showcase*.
- Sinelnikov, A., & Burns, J. (2024, February). Optimizing Paint Line Efficiency at Polaris. In N. J. Loyd (Ed.), *2024 UAH Engineering Showcase*.
- Dassow, C. (2023, March). Ergonomic Push Force Improvement in Automotive Assembly Process. In N. Loyd (Ed.), *2023 UAH Research Horizons.*

- Loutherback, M., & Hatcher, S. (2023, March). Visual Management in Contract Manufacturing Environments. In N. J. Loyd (Ed.), *2023 UAH Research Horizons*.
- Patel, A., & Austin, N. (2023, March). Warehouse Process Optimization in Aerospace Manufacturing Facility. In N. J. Loyd (Ed.), *2023 UAH Research Horizons.*
- Buchanan, B., & Fogle, L. (2023, February). Line Balancing in a Diesel Engine Manufacturing Plant. In N. J. Loyd (Ed.), *2023 UAH Engineering Showcase.*
- Branham, N., Easly, T., Hornyak, B., Painter, R., Rigsby, T., Weger, K., Leder, S., Mesmer, B. L., Jones, N. J., Menon, V., Fahimi, F., Loyd, N. J., Argentina, V. M., & Taylor, C. (2022, March). Interdisciplinary Undergraduate Experience (INCLUDE): Addressing the Design of an Autonomous Robot Through an Interdisciplinary Lens. In *UAH Research Horizons*.
- Shipman, A., Cortelli, R., Flint, A., Simon, H., Bass, H., Berhow, E., Atchley, A., Travis, M., Mesmer, B. L., Weger, K., Argentina, V. M., Jones, N. J., Hsu, L.-W., & Loyd, N. J. (2021, March). Interdisciplinary Undergraduate Experience (INCLUDE): Conceptualizing a Space Ecosystem. In *UAH Research Horizons*. The University of Alabama in Huntsville.

Workshops and Invited Talks

- Leadership Accelerator Academy (LAA); Huntsville, AL; March 2025.
  - I developed and instructed a 7-hour workshop on *Strategies for Operational Excellence* for the LAA Series put on by UAH's Office for Professional and Continuing Education.
- *The Uniqueness of AI-Enabled Systems*, Huntsville, AL, January 2025.
  - Participated on a panel for the 2025 AI Symposium: Autonomous vs. Human-in-the-loop.
- *Developing a Lean Industry 4.0 Strategy*, Huntsville, AL, September 2024.
  - Organized, developed, led, and delivered a 6-hour workshop in conjunction with UAH's Office of Operational Excellence and the Alabama Defense Advanced Manufacturing Community (ADAMC). Spoke and facilitated hands-on activities to attendees from local industry and workforce development entities.
- *Optimizing Performance with Lean and Industry 4.0*, Decatur, AL, August 2024.
  - Organized, developed, led, and delivered a 6-hour workshop in conjunction with UAH's Office of Operational Excellence and the Alabama Defense Advanced Manufacturing Community (ADAMC). Spoke and facilitated hands-on activities to attendees from local industry and workforce development entities.
- *Sustaining Continuous Improvement Efforts*; Auburn, AL, April 2024.

  - Organized and recruited participation for an industry roundtable hosted by Auburn University's Interdisciplinary Center for Advanced Manufacturing Systems (ICAMS).

- *Executive Summit 2024: The Future of Work in the Digital Era*, Huntsville, AL, March 2024.
  - Delivered a 1-hour session talk entitled "Workforce Development and a Continuous Improvement Culture for a Sustainable Future". The event was a joint effort with Staufen US, SEW EuroDrive, UAH, and I2C in an effort to bring academia and industry together to discuss challenges and opportunities in workforce development in the era of digital transformation

- Leadership Accelerator Academy (LAA); Huntsville, AL; March 2024.
  - I developed and instructed a 7-hour workshop on *Strategies for Operational Excellence* for the LAA Series put on by UAH's Office for Professional and Continuing Education.

- Mazda Toyota Manufacturing On-Site Supplier Obeya; Decatur, AL; Fall 2019.
  - Spoke at a Mazda Toyota on-site supplier event, representing UAH and discussing the university's involvement, through CMER and ATN, in support Mazda Toyota's Federation of Advanced Manufacturing Education (FAME) program.