2. CURRICULUM VITAE

Heather Keathley

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August 10, 2022

BIOGRAPHY

Heather Keathley (AKA Heather Keathley-Herring) is an Assistant Professor in the Department of Industrial Engineering & Management Systems (IEMS) at the University of Central Florida (UCF). She is also the Director of the Organizational Effectiveness & Sustainability Research Group and the Industrial Adoption of Technology Lab. Dr. Keathley has a background in industrial and systems engineering with a focus on management systems engineering. She has expertise in mixed-method research including qualitative analysis, statistical modeling, field research (surveys, interviews), and experimentation. She teaches undergraduate and graduate level courses with a specific focus on statistical analysis and industrial experimentation and her research program is centered on organizational change and improvement including implementation of management systems, performance management, organizational resilience, and adoption of emerging technologies to support the future of work.

Education & Training

Academic Degrees

Ph.D. Industrial & Systems Engineering, *2013-2016*
Grado Department of Industrial and Systems Engineering, Virginia Tech, Blacksburg, Virginia, USA
Concentration in Management Systems Engineering
Dissertation Title: *Empirical Investigation of Factors that Affect the Successful Implementation of Performance Measurement Systems*

Ph.D. Social & Military Sciences, *2014-2016*
Dept. of Economy, Management & Leadership, Royal Military Academy, Brussels, Belgium
Dissertation Title: *Learning Organizations in High-Risk Environments: The Role of Leadership Style and Systems of Performance Measurement*

M.S. Industrial & Systems Engineering, *2011-2013*
Grado Department of Industrial and Systems Engineering, Virginia Tech, Blacksburg, Virginia, USA
Non-Thesis/Direct Doctoral Program

B.S. Systems Engineering, *Cum Laude, 2006-2011*
Systems Engineering Department, University of Arkansas at Little Rock, Little Rock, Arkansas, USA
Concentrations in Computer Engineering, Mechanical Engineering; Minor in Mathematics
Senior Design: *Design of Auto-Piloted Unmanned Aerial Vehicle for Land Surveillance*

Professional Certifications

Future Professoriate, *2013-2015*
Graduate School, Virginia Tech, Blacksburg, Virginia, USA

Engineering Intern License, *2011*
Fundamentals of Engineering Exam (General), Arkansas License #7894

Professional Development Activities

Digital Learning STEM Institute (DLI 7836), Fall 2019
University of Central Florida, Orlando, Florida, USA
Non-credit course provided by UCF's Center for Distributed Learning (CDL) focused on online, mixed-mode, or reduced adaptive modalities.

Digitizing and Remediating STEM Assessments, Summer 2017
University of Central Florida, Orlando, Florida, USA
Non-credit course provided by UCF's Evaluation & Proficiency Center (EPC) focused on designing digital assessments for STEM courses.

Professional Experience

Assistant Professor, *August 2016 - Present*
Industrial Engineering & Management Systems, University of Central Florida, Orlando, Florida, USA

Graduate Research Assistant, *February 2014- August 2016*
Grado Department of Industrial and Systems Engineering, Virginia Tech, Blacksburg, Virginia, USA

Instructor, *July 2015- August 2015*
Grado Department of Industrial and Systems Engineering, Virginia Tech, Blacksburg, Virginia, USA
Course: Engineering Economy

Graduate Teaching Assistant, *August 2011- February 2014*
Grado Department of Industrial and Systems Engineering, Virginia Tech, Blacksburg, Virginia, USA
Courses: Engineering Economy, Deterministic Operations Research, Discrete-Event Simulation, Facilities Planning & Material Handling

Supplemental Instruction Coordinator, *January 2011- May 2011*
Department of Systems Engineering, University of Arkansas at Little Rock, Little Rock, Arkansas, USA

Supplemental Instructor, *August 2010- May 2011*
Department of Systems Engineering, University of Arkansas at Little Rock, Little Rock, Arkansas, USA
Courses: Physics I, II for Science and Engineering

Undergraduate Research Assistant, *May 2009- May 2011*
Department of Systems Engineering, University of Arkansas at Little Rock, Little Rock, Arkansas, USA
Assistant Laboratory Manager: Micro-Electromechanical Systems (MEMS) Laboratory
NSF Summer Undergraduate Research Fellowship (SURF) Award: *Piezoelectric Sensors via Plasma Etching of Micro-Cantilever Beams on Silicon Substrates*

Professional Affiliations

American Society of Engineering Management (ASEM), *2012- Present*
Member, Volunteer (Conference Session & Track Chair)

Institute of Industrial & Systems Engineers (IISE), *2012- Present*
Society for Engineering and Management Systems (SEMS)
Member, Volunteer (Conference Session Chair)

Alpha Pi Mu (APM), *2014 – Present*
Member, UCF Chapter Faculty Advisor (*2016- Present*)

Awards & Recognition

William Daughton World Headquarters Service Award, *October 2021*
American Society for Engineering Management; Awarded for contributions as a member of the Technical Committee supporting the transition of the society to a new conference management system.

Merritt Williamson Award for Best Conference Paper, *October 2021*
American Society for Engineering Management; Awarded for "Development of A Causal Model to Evaluate Factors in Performance Measurement Implementation," which was selected as the best dissertation by a panel of senior ASEM members.

Best Dissertation Award, *October 2021*
American Society for Engineering Management; Awarded for "A Dynamic Analysis of the Success Factors that affect Performance Measurement Implementation," which was selected as the best dissertation by a panel of senior ASEM members.

William Daughton World Headquarters Service Award, *October 2020*
American Society for Engineering Management; Awarded for contributions as a member of the Technical Committee supporting the transition of the society to a new conference management system.

ACTIVITIES, OUTCOMES, & IMPACT STATEMENT

Dr. Keathley aims to bring together researchers, students, and industry partners to conduct interdisciplinary research that advances our theoretical understanding of organizational science and behavior while developing practical strategies and tools that allow modern organizations to function more effectively in dynamic and operationally complex environments.

Teaching. Dr. Keathley's teaching strategies focus on meaningfully engaging students in individual and team-based activities that integrate conceptual foundations and practical applications allowing them to exercise support skills (e.g., professionalism, teamwork) while preparing them to be effective in practice. Her student evaluations have reflected these efforts with an average 'Overall Effectiveness' rating of 4.17 on a five-point scale (note that the average for the same measure was 3.81 and 3.95 for the department and college, respectively, over the same time period). As part of her teaching efforts, Dr. Keathley has completed two professional development courses in digitizing course content and teaching in online environments to develop courses that are scalable for larger class sizes while providing an enriching, secure, and accessible learning environment for students. She is also active in mentoring undergraduate and graduate students in fundamental and applied research. Since coming to UCF, she has mentored forty-nine undergraduate students through interdisciplinary directed research projects, senior design projects (extensions of research projects where Dr. Keathley served as one of the primary advisors), and the honors thesis program. She has also supervised five doctoral students who have graduated and secured positions in academia and industry. Of these, one student was awarded the Best Dissertation award from the American Society of Engineering Management. Dr. Keathley is currently advising three doctoral students and four undergraduate students as well as a postdoctoral scholar with a background in organizational psychology.

Research. Dr. Keathley has served as Principal Investigator on three externally funded projects during her time at UCF. One project is funded by the National Science Foundation and is focused on the adoption of intelligent robotics in manufacturing to support the future of work. She is also Principal Investigator on two projects funded by the Belgian Armed Forces to study performance management systems and change management in the defense and public sectors. In addition, she served as a Co-Principal Investigator on a project funded by the Defense Advanced Research Projects Agency to study information spread in social networks. Dr. Keathley's external funding totals $799,350, which has been used to support postdoctoral,

graduate, and undergraduate researchers, establish the Industrial Adoption of Technology lab, and build industry partnerships. During her time at UCF, Dr. Keathley has published seven peer-reviewed journal articles and sixteen peer-reviewed conference papers. As of June 2022, her work has been cited 256 times with an h-index of eight. One of her most impactful publications provides a framework for assessing the development of a research area through analysis of published literature. Dr. Keathley regularly provides one-hour seminars on the systematic literature review approach to graduate researchers both within the IEMS program at UCF as well as for external research collaborators. Recently, one of Dr. Keathley's conference papers was awarded Best Conference Paper by the American Society of Engineering Management leading to an invited publication in the Engineering Management Journal. Through this work, Dr. Keathley has established the Organizational Effectiveness & Sustainability Research Group and the Industrial Adoption of Technology Lab to support her research program and maintain partnerships with industry. Her work has been internationally recognized leading to one invited talk and two invited papers.

Service. Dr. Keathley has a strong appreciation for professional service and often volunteers to support the department and university when possible. This includes participation in committees at the department and college levels as well as service as a reviewer for academic journals, conferences, and funding agencies. Within the Department of Industrial Engineering & Management Systems, Dr. Keathley is a member of the Undergraduate Curriculum Committee and the ABET committee. She also serves as the Assessment Coordinator for the B.S. Industrial Engineering program, which consists of managing the program assessment process to continuously improve student outcomes. Dr. Keathley is also an active member of the Institute of Industrial & Systems Engineering (IISE) as well as the American Society for Engineering Management (ASEM) and she regularly serves as conference session chair at annual conferences as well as track chair for two tracks at the ASEM International Annual Conference. In addition, Dr. Keathley served on the technical committee for the ASEM annual conference for three years during which time she worked to establish and maintain the conference web portal including transitioning the conference to a new platform. The society recognized Dr. Keathley's contributions by awarding her the William Daughton World Headquarters Service Award in 2020 and 2021. Finally, Dr. Keathley serves as the faculty advisor for the UCF chapter of the Alpha Pi Mu (APM) honors society. As part of this role, Dr. Keathley participates in two UCF outreach programs aimed at introducing local primary and secondary school students to STEM disciplines. She manages teams of undergraduate volunteers to complete activities that demonstrate core sub-disciplines of industrial engineering. Dr. Keathley has led the development of five activities that are offered each semester at UCF events. She also leads a one-hour seminar at these events to help students and parents understand the role of industrial engineers in different industries and how industrial engineering contributes to society.

TEACHING, ADVISING & MENTORING

Courses Taught

Industrial Engineering & Management Systems, University of Central Florida, *2016- Present*

Note that student evaluations are from Question 9 (Overall Effectiveness) on the UCF Student Perceptions of Instruction (SPI) survey.

UNDERGRADUATE COURSES:

ESI 4221 Empirical Methods for Industrial Engineering, 3 Credits

Semester	Modality	No. of Students	Mean Score on SPI Q9	Dept./College Mean Q9 Score
Fall 2016	Face-to-Face	119	3.82	3.69/ 3.88
Fall 2017	Face-to-Face	154	3.94	3.82/ 3.88
Fall 2018	Face-to-Face	155	4.38	3.87/ 3.96
Fall 2019	Face-to-Face	113	4.55	3.69/ 3.88
Fall 2020	Face-to-Face/ Remote[1]	146	4.08	3.87/3.99
Fall 2021	Face-to-Face/ Blended[2]	121	3.19	3.60/4.01
Fall 2022	*Face-to-Face*	*TBD*	*TBD*	*TBD*

1. *The course consisted of synchronous lectures streamed live via Zoom and online homework/exams.*
2. *The course was conducted as face-to-face with the lectures live streamed and recorded so that students could participate as preferred. Students were required to take exams in person at the Evaluation and Proficiency Center according to regular course policy.*

STA 3032/3032H Probability & Statistics for Engineering, 3 Credits

Semester	Modality	No. of Students	Mean Score on SPI Q9	Dept./College Mean Q9 Score
Summer 2020	Online	279	3.60	3.78/3.94
Spring 2022	Face-to-Face	21	3.78	3.83/4.03
Fall 2022	*Face-to-Face*	*TBD*	*TBD*	*TBD*

EIN 4545 Industrial Engineering Applications in the Service Industry, 3 Credits

Semester	Modality	No. of Students	Mean Score on SPI Q9	Dept./College Mean Q9 Score
Fall 2019	Face-to-Face	31	4.53	3.69/ 3.88

EGS 3030/3031 Engineering Leadership, 0 Credits

Semester	Modality	No. of Students	Mean Score on SPI Q9	Dept./College Mean Q9 Score
Fall 2018	Face-to-Face	82	4.44	3.87/ 3.96
Spring 2019	Face-to-Face	109	4.45	3.99/ 3.99

ESI 3933 Industrial Engineering Career Advising, 0 Credits

Semester	Modality	No. of Students	Mean Score on SPI Q9	Dept./College Mean Q9 Score
Fall 2021	Online	1	*NR*	-

EIN 4903H/4970H Honors Directed Research/Thesis, 3 Credits

Semester	Modality	No. of Students	Mean Score on SPI Q9	Dept./College Mean Q9 Score
Spring 2019	Face-to-Face	1	*NR*	-
Fall 2019	Face-to-Face	1	*NR*	-
Fall 2020	Face-to-Face	1	*NR*	-
Spring 2021	Face-to-Face	1	*NR*	-

ESI 4912 Directed Undergraduate Research, 0- 3 Credits

Semester	Modality	No. of Students	Mean Score on SPI Q9	Dept./College Mean Q9 Score
Spring 2017	Face-to-Face	2	*NR*	-
Fall 2018	Face-to-Face	10	*NR*	-
Fall 2019	Face-to-Face	7	*NR*	-
Spring 2020	Face-to-Face	12	*NR*	-
Fall 2020	Face-to-Face	8	*NR*	-
Spring 2021	Face-to-Face	9	*NR*	-
Fall 2021	Face-to-Face	3	*NR*	-

GRADUATE COURSES:

ESI 6247 Experimental Design & Taguchi Methods, 3 Credits

Semester	Modality	No. of Students	Mean Score on SPI Q9	Dept./ College Mean Q9 Score
Spring 2019	Mixed Mode	54	4.59	3.99/ 3.99
Spring 2020	Mixed Mode	44	4.41	3.83/ 3.97
Spring 2021	Mixed Mode	33	4.77	3.84/ 4.01

EIN 6182 Engineering Management, 3 Credits

Semester	Modality	No. of Students	Mean Score on SPI Q9	Dept./College Mean Q9 Score
Spring 2017	Mixed Mode	10	*NR*	-

Industrial & Systems Engineering, Virginia Tech, *Summer 2015*

UNDERGRADUATE COURSES:

ISE 2014 Engineering Economy, 3 Credits

Semester	Modality	No. of Students	Student Perceptions of Teaching (SPOT)
Summer 2015	Face-to-Face	25	*NR*

Advising & Mentoring

Postdoctoral Scholars

CURRENT – University of Central Florida Scholars

1. Juseob Lee, Industrial/Organizational Psychology, *2021- Present*
   Funding: NSF Future of Work at the Human-Technology Frontier; UCF Preeminent Postdoctoral Program (P3)
   Project: *Supervise It! Optimizing Intelligent Robot-Human Partnerships Through Feedback and Control: A Study on Supervised Work Cells*

Dissertation Students

COMPLETED – University of Central Florida Students: Primary Advisor

1. Elaf Makkawi, Ph.D. Industrial Engineering, *2017- Summer 2020*
   Dissertation Title: *The Impact of Work Environment on Successful Implementation of Lean Six Sigma in Emergency Department*
   Funding: Self-Funded
   Current Position: Assistant Professor

2. Joshua Nelson, Ph.D. Industrial Engineering, *2017- Fall 2020*
   Dissertation Title: Leveraging Augmented Reality for Real-time Operational Performance Management
   Funding: Employer Funded; NSF iCorps (Summer 2020)
   Current Position: Professional Engineer

3. Mustafa Rawshdeh, Ph.D. Industrial Engineering, *2016- Spring 2021*
   Dissertation Title: Factors That Affect the Successful Implementation of Quality Management Systems in Healthcare
   Funding: Jordanian Government; UCF IEMS Graduate Teaching Assistant/Associate
   Current Position: Assistant Professor

COMPLETED – University of Central Florida Students: Co-Advisor

4. Laura Segarra, Ph.D. Industrial Engineering, *2017- Summer 2022*
   Co-Advisor Dr. Luis Rabelo
   Dissertation Title: A Contingent Approach to Studying Technical Programs in the Public Aerospace Industry
   Funding: Employer Funded
   Current Position: Professional Engineer

COMPLETED – External Students: Co-Advisor

5. Olufunke Oladimeji, Ph.D. Systems & Engineering Management, *2016- Summer 2020*
   Texas Tech University; Co-Advisor Dr. Jennifer Cross
   Dissertation Title: A Dynamic Analysis of the Success Factors that Affect Performance Measurement Implementation
   Funding: Texas Tech University Graduate Teaching Assistant/Associate
   Current Position: Assistant Professor

CURRENT – University of Central Florida Students: Primary Advisor

6. Seyedreza Baharisaravi, Ph.D. Industrial Engineering, *2017- Present*
   Dissertation Title: Developing a Multi-Level Model of Organizational Resilience
   Funding: Start-up funding; UCF IEMS Graduate Teaching Assistant; Graduate Research Assistant NSF Future of Work at the Human-Technology Frontier
   Expected Defense: Fall 2022

7. Cherie Herrin, Ph.D. Industrial Engineering, *2021- Present*
   Dissertation Title: TBD – Organizational Transformation & Change Management
   Funding: Employer Funded
   Expected Defense: Spring 2025

8. Sara Ansari, Ph.D. Industrial Engineering, *2022- Present*
   Dissertation Title: TBD – System Dynamics Modeling to Improve Technology Adoption Success
   Funding: Graduate Research Assistant NSF Future of Work at the Human-Technology Frontier
   Expected Defense: Summer 2025

Undergraduate Thesis Students

COMPLETED – University of Central Florida Students: Primary Advisor

1. Valentina Parra Alvarez, B.S. Industrial Engineering, *2019*
   Program: Honors in the Major Thesis
   Thesis Title: *Successful Implementation of The Baldrige Performance Excellence Program*

2. Stefani Baz, B.S. Industrial Engineering, *2020-2021*
   Program: Honors in the Major Thesis
   Thesis Title: A Model for Assessing Staff Resilience to Improve Organizational Resilience in Emergency Departments
   Awarded the UCF Honors Undergraduate Thesis (HUT) scholarship (Fall 2020, $1k)

Undergraduate Non-Thesis Students

COMPLETED – Directed Undergraduate Research: Primary Advisor

1. Systematic Literature Review, Spring 2017
   Students: Sean Birkholz; Brian Strevens
   Project: Change Management Theory: Systematic Review of Simulation and Modeling Techniques

2. Systematic Literature Review, Fall 2018
   Students: Vivian Abreu; David Corredor; Christopher Geszti; Harley Gomez; Chirag Merchant; Natnisha Nimityongskul; Carlos Ricoveri Granito; Alexander Riffe; Teresa Rintoul; Benny Tang
   Project: Systematic Literature Review Study Group

3. Laboratory Experiment, Fall 2019- Fall 2020
   Students: Stefani Baz; Michaela Green; Bijan Hejazimanesh; Santiago Holguin; Colin Jackson; Steve Montes; Fatemah Najafali; Lawrence O'Connor-Emanuel; Jackson Trudel; Angela Vaca; Bailey Waldorf; Elizabeth Warner
   Project: Augmented Reality as a Tool for Operational Decision-Making

4. Systematic Literature Review, Fall 2020- Spring 2021
   Students: Sofia Florez; Yaroslav Spichak; Diego Tovar-Lopenza; Juan Villalobos
   Project: Systematic Review of Strategic-Level Stakeholders in the Defense Sector

5. Systematic Literature Review, Spring 2021
   Students: Quan Do; Santiago Gonzalez Aguado; Roger Guerrero; Alexandra Hernandez
   Project: Systematic Review Experiential Reality Applications in Industry

6. Systematic Literature Review, Fall 2020- Spring 2021
   Students: Julieth Esparragoza Gomez; Nathan O'Brien
   Project: Systematic Review of Technology Adoption Models & Theory
7. Case Study, Fall 2020- Fall 2021
   Student: Navindra Maraj
   Project: Systems Requirements Analysis for Surface Defect Detector
8. Grounded Theory Study, Fall 2020- Fall 2021
   Students: Sofia Florez; Alexandra Hernandez; Hannah Rowland
   Project: Development of a Survey and Interview Protocol to Investigate Adoption of Advanced Robotics in Industry

CURRENT – Directed Undergraduate Research: Primary Advisor

1. Laboratory and Field Study, Summer 2022
   Students: Kayla Sterling, Sofia Covelli, Jayson Srouji, Landen Teelon-Rozo
   Project: Adoption of Advanced Robotics in Human-Led Manufacturing

COMPLETED – Directed Undergraduate Research: Co- Advisor

1. Laboratory Experiment, Spring 2020
   Student: Charles De Jager
   Co-Advisor: Dr. Joon-Hyuk Park
   Project: *Car Damage Detection System*

COMPLETED –UCF EXCEL Program: Primary Advisor

1. Survey Study, 2018-2019
   Student: Breanne Dodier
   Project: *Expert Study & large-scale survey on Quality Management system implementation*

COMPLETED –Senior Design Team Advisor

1. Prototype Design & Testing, *Spring 2020- Fall 2020*
   Students: Kyle Cabra, Charles de Jager, Peter Dorsaneo, John Hatchitt, Bijan Heljazimanesh, Santiago Holguin, John LaSala, Angela Vaca, Elizabeth Warner, Grant White, Ryan Wilson, Leo, Zhang, Ryan Ziegler
   Project: Augmented Reality Tool to Improve Industrial Process in Manufacturing
   Mentored an interdisciplinary team of Industrial Engineering and Computer Science students to develop an augmented reality tool to support operations at a local manufacturing company.
2. Systematic Literature Review, *Fall 2020*
   Students: Gabe Kagan; Julia Khan; Marah Kosto; Jonathan Manglardi; Omar Zavala
   Project: Experiential Reality Interoperability Research: Investigation, Analysis, and Findings
   Mentored a team of Industrial Engineering students to conduct a Systematic Literature Review to investigate current applications of eXperiential Reality tools to support client decision-making related to technology adoption readiness.

Doctoral Committee Member

COMPLETED – University of Central Florida Students

Student	Years	Primary Advisor	Program
Mengmeng Chen	2016- 2018	Dr. Luis Rabelo	Ph.D. Industrial Engineering
Title:	*An Engineering Analytics-Based Framework for Computational Advertising Systems*		
Sultan Almutairi	2018- 2019	Dr. Tomas O'Neal	Ph.D. Industrial Engineering
Title:	*The Challenges and Barriers to Employment for Female in Riyadh and Tabuk*		
Prateek Basavaraj	2018- 2020	Dr. Ivan Garibay	Ph.D. Industrial Engineering
Title:	*Utilizing Institutional Data for Curriculum Enhancement to Improve Student Success in Undergraduate Computing Programs*		
Seyyedmilad Talebzadehhosseini	2018- 2020	Dr. Ivan Garibay	Ph.D. Industrial Engineering
Title:	*Investigating the Interaction Effects of Green Product Development and Countries Green Growth Performance: Economic Complexity Perspective*		
Ryan Rust	2018- 2021	Dr. Ahmad Elshennawy	Ph.D. Industrial Engineering
Title:	*A Framework for Mitigating Obsolescence in Military Based Systems*		
Shahed Obeidat	2018-2021	Dr. Waldemar Karwowski	Ph.D. Industrial Engineering
Title:	*Assessment of Work-Related Feelings Among Teachers Within Jordan and The United States Educational Systems*		

CURRENT – University of Central Florida Students

Student	Years	Primary Advisor	Program
Yousef Oleyaeimotlagh	2018- Present	Dr. Adan Vela	Ph.D. Industrial Engineering
	Expected Defense: Summer 2022		
Alper Senol	2019- Present	Dr. Ahmad Elshennawy	Ph.D. Industrial Engineering
	Expected Defense: Fall 2022		
Mohamed Hamada	2019- Present	Dr. Luis Rabelo	Ph.D. Industrial Engineering
	Candidacy Scheduled: Spring 2022		
Ben Park	2020- Present	Dr. Timothy Kotnour	Ph.D. Industrial Engineering
	Candidacy Passed: Spring 2022		

CURRENT – External Students

Student	Years	Primary Advisor	Program
Joaquim Soares	2018-Present	Dr. Geert Letens	Social & Military Sciences (Royal Military Academy, Belgium)
	Final Defense Planned: Summer 2023		
Sven Vanhengel	2020-Present	Dr. Geert Letens	Social & Military Sciences (Royal Military Academy, Belgium)
	Qualifying Exam Planned: Fall 2022		
Mohammed Alrezq	2021-Present	Dr. Eileen Van Aken	Industrial & Systems Engineering (Virginia Tech)
	Qualifying Exam Passed: Fall 2021		

Educational Contributions

Course Development – ESI 4221 Empirical Methods for Industrial Engineering, *2017- Present*
Industrial Engineering & Management Systems, University of Central Florida
Revising and digitizing the required ESI 4221 Empirical Methods for Industrial Engineering undergraduate course to improve scalability and increase active/experiential learning.

- Completed the Digitizing STEM Assessments course during the summer of 2017 to earn access to the Evaluation and Proficiency Center (EPC) testing services.
- Began digitizing assessments for the ESI 4221 Empirical Methods for Industrial Engineers course in Fall 2017 including developing four digital quizzes, digitizing two existing exams, and developing one digital exam.
- Earned a course-release for Spring 2018 to continue digitizing and revising content for the ESI 4221 course including: digitizing all homework, quizzes, and exams; developing a course project; revising and updating course modules; pre-recording demonstrations, and selection of new course texts and materials.
- Taught the revised course in Fall 2018 featuring digitized, auto-graded assessments including seven homework assignments, seven quizzes, four midterm exams, and a final exam. The revision also expanded the course project to focus on use of software tools (IBM SPSS & MS Excel) to solve a relevant industrial engineering problem. The mean score on Question 9 of the SPI (i.e., overall effectiveness) was 4.38 (out of 5.0).
- Revised the course content and structure based on feedback from Fall 2018 and completed the DLI 7836 course to earn the ability to hold fully online and mixed-mode courses during the Summer of 2019. Continued to refine the course content and structure and held the revised course in Fall 2019 earning a mean score of 4.53 (out of 5.0) on Question 9 of the SPI (i.e., overall effectiveness).
- Course development was affected by remote teaching efforts during Fall 2020 and 2021. This was further complicated by technical difficulties interfacing with the EPC during Fall 2021. The challenges and lessons learned were evaluated and strategies for improving the resilience of the course were developed in Spring 2022. The newly revised course will be offered in Fall 2022.

Course Development – STA 3032/3023H Probability & Statistics for Engineering, *2022- Present*
Industrial Engineering & Management Systems, University of Central Florida
Generating digital content for the required STA 3032/3032H Probability & Statistics for Engineering undergraduate course to improve scalability and increase student success (supporting freshmen/ sophomore students in self-directed learning in a fully online course). This includes creating pre-recorded

lectures that will be made available on-demand in both the live and online sections of the course as well as curating additional guidance/resources for student success in online learning environments (e.g., detailed guidelines for progressing through course materials, key differences in learning strategies in live vs. online courses, UCF and external resources for online learning, self-assessment strategies).

RESEARCH & SCHOLARLY ACTIVITIES

Keywords: Management System Engineering, Engineering Management, Systems Engineering, System Implementation, Change Management, Performance Measurement & Management, Organizational Resilience, Technology Adoption.

Publications

Note: Publications are listed in reverse chronological order with the Lead Author listed first.
Note: * indicates graduate or undergraduate students under direct supervision
** indicates a graduate or undergraduate students under general advisement

Refereed Journal Papers

Published:

1. Soares, J., Letens**, G., Vallet, N., Van Bockhaven, W., Keathley-Herring, H., & Van Aken, E. (2022). The defence performance measurement framework: measuring the performance of defence organizations at the strategic level. Defence Studies, 1-24. . IF(2021): 2.0.
2. Nelson, J.*, & Keathley, H. (2021). Augmented Reality for Managerial Tasks: Review and Implications for Engineering and Operations Management. Engineering Management Journal, 1-17. IF(2021): 2.548.
3. Oladimeji, O.*, Cross, J., & Keathley-Herring, H. (2020). System dynamics applications in performance measurement research: progress and challenges. Management Decision. IF(2021): 5.589.
4. Oladimeji, O. O.*, Keathley-Herring, H., & Cross, J. A. (2020). System dynamics applications in performance measurement research: A systematic review. International Journal of Productivity and Performance Management. JCI(2021): 0.70.
5. Talebzadehhosseini, S.**, Garibay, I., Keathley-Herring, H., Al-Rawahi, Z. R. S., Garibay, O. O., & Woodell, J. K. (2019). Strategies to enhance university economic engagement: evidence from US universities. Studies in Higher Education, 1-20. IF(2021): 4.017.
6. Keathley-Herring, H. (2017). An Approach to Quantify the Factors That Affect Performance Measurement System Implementation. Engineering Management Journal, 29(2), 63-73. IF(2021): 2.548.
7. Keathley-Herring, H., Van Aken, E., Gonzalez-Aleu, F., Deschamps, F., Letens, G., & Orlandini, P. C. (2016). Assessing the maturity of a research area: bibliometric review and proposed framework. Scientometrics, 1-25. IF(2021): 3.801.

Submitted/Under Review:

1. Makkawi, E.*, Keathley-Herring, H., The Impact of Work Environment on Successful Lean Six Sigma Projects. Total Quality Management (Submitted August 2022). IF(2021): 0.299.
2. Rawshdeh, M.*, Keathley-Herring, H., Successful Implementation Factors of Quality Management Systems in Healthcare. Healthcare (submitted July 2022). IF(2021): 3.160.
8. Oladimeji, O.*, Cross, J., & Keathley-Herring, H., Predicting Performance Measurement Implementation Success: An ANP Study. Engineering Management Journal (Submitted May 2022). IF(2021): 2.548.

In Preparation:

1. Baharisaravi, S.*, Keathley-Herring, H., *Multi-Dimensional Model of Organizational Resilience: Integrating Insights across domains.*
2. Baz, S.*, Keathley-Herring, H., *Impact of Staff Members on Organizational Resilience in Emergency Departments.*
3. Makkawi, E.*, Keathley-Herring, H., *A Conceptual Framework for Critical Success Factors of Lean Six Sigma in Emergency Departments*.
4. Makkawi, E.*, Keathley-Herring, H., *Lean Six Sigma Implementation in Emergency Departments: A Qualitative Case Study Using Grounded Theory*.
5. Nelson, J.*, Keathley-Herring, H., *An Expert Study on Leveraging Augmented Reality for Operational Performance Measurement*.
6. Nelson, J.*, Keathley-Herring, H., *Augmented Reality in Operational Performance Management: Creating Immersive Performance Environments to Support Real-Time Decision Making*.
7. Oladimeji, O.*, Cross, J., & Keathley-Herring, H., *A dynamic analysis to evaluate the success factors of the performance measurement implementation process*.
8. Rawshdeh, M.*, Keathley-Herring, H., *Facilitators, Barriers, And Benefits of Quality Management Systems Implementation: Healthcare Experts' Perspectives.*
9. Soares, J.**, Letens, G., Keathley-Herring, H., *Systematic Review of Defense Stakeholders' Perceptions of Military Performance.*

Refereed Publications in Conference Proceedings

1. Quan 'Chloe' Do*, Santiago Gonzalez Aguado*, Roger Guerrero*, Alexandra Hernandez-Gonzalez*, Heather Keathley, (2021), Recent Advancements in XR Interoperability Research: Systematic Review and Synthesis, Simulation Interoperability Standards Organization SIMposium, September 2021.
2. Oladimeji, O.*, Cross, J., Keathley-Herring, H., (2020), Development of a causal model to evaluate factors in performance measurement implementation, Proceedings of the American Society for Engineering Management (ASEM) 2021 Conference, Virtual.
3. Dr. Ganapathy Natarajan, Dr. Ean H. Ng, Dr. Elizabeth Schott, Dr. Heather Keathley, (2020), Round Table Presentation Format: Lessons Learned and Application to Active Learning Pedagogies,

Proceedings of the American Society for Engineering Management (ASEM) 2020 Conference, Virtual.

4. Oladimeji, O.*, Cross, J., Keathley-Herring, H., (2020). Identifying case studies for performance measurement implementation models using systematic review. In IIE Annual Conference. Proceedings (pp. 186-191). Institute of Industrial and Systems Engineers (IISE).
5. Harfoush, A*, Baharisaravi, S*, Keathley, H. (2020). Using Statistic Tools in Organizational Resilience: A Review. Proceedings of the 2020 Industrial and Systems Engineering Research Conference, Institute of Industrial Engineers, May 2020.
6. Oladimeji, O.*, Cross, J., Keathley-Herring, H., (2019). Developing causal relationships for the performance measurement implementation process. In 2019 International Annual Conference of the American Society for Engineering Management and 40th Meeting Celebration: A Systems Approach to Engineering Management Solutions, ASEM 2019. American Society for Engineering Management.
7. Oladimeji, O.*, Cross, J., Keathley-Herring, H., (2019). Factors Affecting Performance Measurement Implementation: A SEM Analysis. In IIE Annual Conference. Proceedings (pp. 230-235). Institute of Industrial and Systems Engineers (IISE).
8. Bidoki, N. H.**, Sukthankar, G., Keathley, H., & Garibay, I. (2019). A Cross-Repository Model for Predicting Popularity in GitHub. arXiv preprint arXiv:1902.05216.
9. Gorte, L., Deschamps, F., de Lima, E. P., & Keathley-Herring, H. (2018). Aligning organizational and operations performance: a process-based approach. In IIE Annual Conference. Proceedings (pp. 1055-1060). Institute of Industrial and Systems Engineers (IISE).
10. Oladimeji, O.*, Keathley-Herring, H., & Cross, J. (2018). System Dynamics Applications in Performance Measurement Research: Bibliometric Analysis, Proceedings of the 2018 Industrial and Systems Engineering Research Conference, Institute of Industrial Engineers, May 19 – May 22, 2018.
11. Soares, J.*, Letens, G., Vallet, N., Van Bockhaeven, W., Keathley-Herring, H. and Van Aken, E. (2018). The Defense Performance Measurement Framework: A Strategic-level Case Study, Proceedings of the Performance Measurement Association International Conference, Warshaw, September 2018.
12. Soares, J.*, Letens, G., Vallet, N., Van Bockhaeven, W., Keathley-Herring, H. and Van Aken, E. (2018). The Defense Performance Measurement Framework: A Tactical and Operational Case Study, Proceedings of the International Joint Conference, Lisbon, July 2018.
13. Letens, G., Soares, J.*, Van Aken, E., Keathley, H., Vallet, N. & Van Bockhaven W. (2017). A Preliminary Generic Strategic Defense Performance Measurement Framework, In: Proceedings of the American Society for Engineering Management (ASEM) 2017 Conference, Huntsville, U.S.A.
14. Oladimeji, O.*, Cross, J., and Keathley, H. (2017). Systematic Literature Review of Modeling and Simulation of Organizational Change, International Annual Conference, American Society for Engineering Management, Oct. 2017.
15. Gonzalez-Aleu, F. and Keathley, H. (2017) Bibliometric Analysis of Research in Continuous Improvement Projects in Hospitals, Proceedings of the International Conference on Industrial Engineering and Operations Management, Conrad Istanbul Bosphorus (Turkey), April 11-14, 2017.

16. Keathley, H., Bean, A., Chen, T., Vila, K., Ye, K., Gonzalez-Aleu, F. (2016). Bibliometric Analysis of Research Design Characteristics in Engineering Management Research, Proceedings of the 2016 Industrial and Systems Engineering Research Conference, Institute of Industrial Engineers, May 21-24, 2016. (Received 2nd Place in the SEMS Best Student Paper Competition for the Engineering Management Track).
17. Keathley, H., Van Aken, E., and Letens, G., (2015). Learning organization characteristics in deployed military units, Proceedings of the 2015 International Annual Conference, American Society for Engineering Management, October 7-10, 2015.
18. Keathley, H., Bean, A., Chen, T., Vila, K., Ye, K., and Gonzalez-Aleu, F. (2015). Bibliometric analysis of author collaboration in engineering management research, Proceedings of the 2015 International Annual Conference, American Society for Engineering Management, October 7-10, 2015. (Received 2nd Place in the Merl Baker Best Student Paper Competition).
19. Keathley, H., Du, R., and Olliges, K. (2015). Review of performance measurement practices in military and government sectors, Proceedings of the 2015 Industrial and Systems Engineering Research Conference, Institute of Industrial Engineers, May 30 -June 2, 2015.
20. Gonzalez-Aleu, F. and Keathley, H. (2015). Design and application of a meta-evaluation framework, Proceedings of the 2015 Industrial and Systems Engineering Research Conference, Institute of Industrial Engineers May 30-June 2, 2015. (Received 2nd Place in the SEMS Best Student Paper Competition for the Engineering Management Track).
21. Keathley, H., Van Aken, E.M., and Letens, G. (2014). Performance measurement system implementation: Systematic review of success factors, Proceedings of the 2014 International Annual Conference, American Society for Engineering Management, October 15-18, 2014.
22. Keathley, H., Van Aken, E.M., and Letens, G. (2014). Review of factors affecting performance measurement system implementation, Proceedings of the 2014 International Conference on Theory and Practice of Performance Measurement and Management, Performance Measurement Association, June 25-27, 2014.
23. Keathley, H., Van Aken, E.M., and Letens, G. (2014). Performance measurement system implementation: Meta-evaluation of literature on success factors, Proceedings of the 2014 Industrial and Systems Engineering Research Conference, IIE, May 31-June 3, 2014.
24. Keathley, H. (2013). Quantitative analysis of factors that affect performance measurement system implementation, Proceedings of the 2013 International Annual Conference, American Society for Engineering Management, October 2-5, 2013. (Received first place, Best Student Paper Competition)
25. Keathley, H., Gonzalez-Aleu, F., Cardenas Orlandini, P.F., Van Aken, E.M., Deschamps, F., and Rosa Leite, L. (2013). Maturity assessment of performance measurement implementation success factor literature, Proceedings of the 2013 International Annual Conference, American Society for Engineering Management, October 2-5, 2013.

26. Keathley, H. and Van Aken, E.M. (2013). Systematic literature review on the factors that affect performance measurement system implementation, Proceedings of the 2013 Industrial and Systems Engineering Research Conference, IIE, May 18-22, 2013.
27. Keathley, H., Gonzalez-Aleu, F., Cardenas Orlandini, P.F., Van Aken, E.M., Deschamps, F., and Rosa Leite, L. (2013). Proposed maturity assessment framework for a research field, Proceedings of the 2013 Industrial and Systems Engineering Research Conference, IIE, May 18-22, 2013.

Non-Refereed Publications

1. Quan 'Chloe' Do, Santiago Gonzalez Aguado, Roger Guerrero, Alexandra Hernandez-Gonzalez, Heather Keathley (2021). Systematic Review of eXperiential Reality Interoperability Literature, Unpublished Technical Report, May 2021.
2. Keathley, H., Du, R., Olliges, K., Chen, T., Van Aken, E.M., Letens, G. (2016). Systematic literature review of performance measurement practices in military and government sectors; Results of an undergraduate research project Part 2, Unpublished Technical Report, February 2016.
3. Keathley, H., Du, R., Olliges, K., Van Aken, E.M., Letens, G. (2015). Systematic literature review of performance measurement practices in military and government sectors; Results of an undergraduate research project Part 1, Unpublished Technical Report, January 2015.

Presentations

Note: * indicates graduate or undergraduate students under direct supervision
** indicates a graduate or undergraduate students under general advisement

Invited Presentations

1. Heather Keathley, (2021), Creating Immersive Performance Environments to Support Real-Time Operations Management, Simulation Interoperability Standards Organization Simulation Innovation Workshop, February 2021.

Presentations at International Conferences

1. Harfoush, A.*, Keathley, H., "Using Statistic Tools in Organization Resilience: A Review." Presented at the 2019 American Society for Engineering Management International Annual Conference.
2. Keathley, H., "Simulating Organizational Change: A System Dynamics Model to Support Change Success." Presented at the 2019 American Society for Engineering Management International Annual Conference.
3. Rawshdeh, M.*, Keathley-Herring, H. (2019) Successful Implementation of Quality Management Systems in Hospitals: Expert Study, Industrial and Systems Engineering Research Conference, Orlando, FL.
4. Keathley-Herring, H. (2019) System Dynamics Model to Support Organizational Change, Industrial and Systems Engineering Research Conference, Orlando, FL.
5. Keathley-Herring, H. (2019) Defining and Enforcing Reputation on Online Social Networks: Systematic Review, Industrial and Systems Engineering Research Conference, Orlando, FL.

6. Rawshdeh, M.*, Keathley-Herring, H. (2018) Success Factors for Implementing Quality Management Systems in Healthcare Organizations, American Society for Engineering Management International Annual Conference, Coeur d'Alene, ID.
7. Baharisaravi, S.*, Keathley-Herring, H. (2018) Developing a Multi-Level Model of Organizational Resilience, American Society for Engineering Management International Annual Conference, Coeur d'Alene, ID.
8. Letens, G., Van Aken, E.M., & Keathley-Herring, H., (2018) Successful Implementation of Quality Management Systems in Healthcare: Systematic Review, Industrial and Systems Engineering Research Conference, Orlando, FL.
9. Gorte, L., Deschamps, F., & Keathley-Herring, H., (2018) Aligning organizational and operations performance: a process-based approach, Industrial and Systems Engineering Research Conference, Orlando, FL.
10. Keathley-Herring, H., (2018), Systematic Review of Modeling Techniques for Organizational Change, Industrial and Systems Engineering Research Conference, Orlando, FL.
11. Baharisaravi, S.*, & Keathley-Herring, H., (2018) Systematic Review of Factors that Affect Organizational Resilience, Industrial and Systems Engineering Research Conference, Orlando, FL.
12. Rawshdeh, M.* & Keathley-Herring, H., (2018) Successful Implementation of Quality Management Systems in Healthcare: Systematic Review, Industrial and Systems Engineering Research Conference, Orlando, FL.
13. Keathley, H., (2018) Supporting Quality Management through Effective Implementation of Performance Measurement Systems, 3rd Central Florida Quality Conference, University of Central Florida American Society for Quality Conference, Orlando, FL.
14. Keathley, H., Van Aken, E., & Letens, G., (2017) Quantifying the Effects of Factors that Affect Performance Measurement System Implementation, American Society for Engineering Management International Annual Conference, Huntsville, AL.
15. Keathley, H., (2017) Systematic Literature Review of Modeling and Simulation of Organizational Change, American Society for Engineering Management International Annual Conference, Huntsville, AL.
16. Keathley, H., Van Aken, E., & Letens, G., (2017) Development of Learning Organization Characteristics in Deployed Military Units, American Society for Engineering Management International Annual Conference, Huntsville, AL.
17. Keathley, H., Van Aken, E., & Letens, G., (2017) Leadership Styles in Deployed Military Units, Industrial and Systems Engineering Research Conference, Pittsburgh, PA.
18. Keathley, H., Van Aken, E., & Letens, G., (2017) Critical Success Factors for Performance Measurement System Implementation, Industrial and Systems Engineering Research Conference, Pittsburgh, PA.
19. Keathley, H. (2016) Factors that Affect the Success of Performance Measurement System Implementation, Industrial and Systems Engineering Research Conference, May 21- 24, 2016.

20. Keathley, H., Van Aken, E., Letens, G., (2016) Factors that Affect the Success of Performance Measurement System Implementation, Industrial and Systems Engineering Research Conference, May 21- 24, 2016.
21. Keathley, H., Du, R., & Olliges, K., (2015). Learning Organization Characteristics in Deployed Units, *International Annual Conference*, American Society for Engineering Management, October 7-10, 2015.
22. Keathley, H., Gonzalez-Aleu, F., Cardenas-Orlandini, P., Deschamps, F., Van Aken, E., and Letens, G., (2014). Performance measurement research: Lessons learned from Systematic Literature Review, *International Annual Conference*, American Society for Engineering Management, October 15-18, 2014.
23. Keathley, H., Gonzalez-Aleu, F., Cardenas-Orlandini, P., Deschamps, F., and Van Aken, E., (2014). Framework for assessing the maturity of a research field, Industrial and Systems Engineering Research Conference, May 31-June 3, 2014.

Grants & Contracts

Awarded

1. Change management in Public Sector Organizations
   - Position: Principal Investigator
   - Collaborators: Dr. Geert Letens; Royal Military Academy, Belgium
   - Funding Source: Belgian Armed Forces (BAF)
   - Funding Amount: $ 48,000.00
   - Period of Support: November 2021 – November 2025
2. Supervise It! Optimizing Intelligent Robot-Human Partnerships Through Feedback and Control: A Study on Supervised Work Cells
   - Position: Principal Investigator
   - Collaborators: Dr. Adan Vela, Dr. Waldemar Karwowski, Dr. Patricio Vela (Georgia Tech)
   - Funding Source: National Science Foundation (NSF)
   - Funding Amount: $ 469,207.00 (Total award amount: $ 1,042,683.00)
   - Period of Support: October 2020 – September 2023
3. I-Corps: Leveraging Emerging Technologies to Create Immersive Performance Environments
   - Position: Principal Investigator
   - Collaborators: Joshua Nelson, Colin Jackson
   - Funding Source: National Science Foundation (NSF)
   - Funding Amount: $ 2,548.00
   - Period of Support: May 2020 – November 2020
4. Design of Effective Performance Measurement Systems for Defense and Security Organizations
   - Position: Principal Investigator
   - Collaborators: Dr. Geert Letens; Royal Military Academy, Belgium
   - Funding Source: Belgian Armed Forces (BAF)
   - Funding Amount: $ 90,956.00
   - Period of Support: December 2018 – December 2021

5. Deep Agent: A Framework for Information Spread and Evolution in Social Networks
   Position: Co-Principal Investigator
   Collaborators: Ivan Garibay, Gita Sukthankar, Alexander Mantzaris, Stephen Fiore
   Funding Source: Defense Advanced Research Projects Agency (DARPA)
   Funding Amount: $ 188,638.00
   Period of Support: May 2018 – December 2021
6. RF: ell2 Community of Practice 2019: Coming Together to Share and Develop Innovation Best Practices
   Position: Principal Investigator
   Collaborators: Dr. Geert Letens; Royal Military Academy, Belgium
   Funding Source: Central Florida Companies (TBD)
   Funding Amount: $ 1.00
   Period of Support: December 2018 – December 2021

Awards

1. Preeminent Postdoctoral Program, Awarded $50,000.00 in matching funds to support a postdoctoral scholar over two years, College of Graduate Studies, UCF, (2020- 2022).

PROFESSIONAL SERVICE

College/University Service

CECS Awards Committee, *2016 – Present*
College of Engineering and Computer Science, University of Central Florida
IEMS Representative – Evaluate candidates and provide recommendations for scholarships offered within CECS as well as college-level awards for students, faculty, and staff.

Department Service

IEMS ABET Committee, *2021 – Present*
Dept. of Industrial Engineering and Management Systems, University of Central Florida
Member - Support departmental activities focused on compliance with ABET best practices.

B.S. Industrial Engineering Program Assessment Coordinator, *2018 – Present*
Dept. of Industrial Engineering and Management Systems, University of Central Florida
Manage the BSIE program assessment process including collection and analysis of data, working with course owners to ensure accurate and reliable data, disseminating results to IEMS faculty and staff as well as the IEMS Industrial Advisory Board and relevant CECS groups, and supporting the continuous improvement of the program including the transition to the new ABET 1-7 student outcomes.

Undergraduate Curriculum Committee, *2018 – Present*
Dept. of Industrial Engineering and Management Systems, University of Central Florida
Member - Support the continuous improvement of IEMS undergraduate course curriculum.

Alpha Pi Mu Faculty Advisor, *2016 - Present*
Dept. of Industrial Engineering and Management Systems, University of Central Florida
Advise and mentor the APM officers and active members including supporting induction of new members and execution of service-based pledge projects as well as coordination of new and ongoing chapter activities.

Graduate Admissions Committee, *2018 - 2020*
Dept. of Industrial Engineering and Management Systems, University of Central Florida

CECS Instructor/ Lecturer Promotion Committee Member, *2018- 2019*
Dept. of Industrial Engineering and Management Systems, University of Central Florida

Professional Service

NSF Panelist, *2021, 2022*
Future of Work at the Human-Technology Frontier, National Science Foundation.
Invited by NSF to participate as a panelist for the FWHTF program. Reviewed proposals and participated in the discussions to make funding recommendations.

International Conference Technical Committee, *2017-2020*
American Society for Engineering Management International Annual Conference
Member - Develop and maintain the electronic submission management system, manage automated attendee and reviewer communications, manage the abstract and review process, and support other committee activities.

International Conference Track Chair, *2017-Present*
American Society for Engineering Management International Annual Conference
Tracks: Legal issues in Engineering Management, Professional Codes of Conduct and Ethics

Publication Reviewer, *2016- Present*
Peer-Reviewed Academic Journals: Int. Journal of Management Reviews (IF 13.42), Engineering Management Journal (IF 1.67), Journal of Engineering and Technology Management (IF 3.85), Operations Management Research (IF 2.706)

Peer-Reviewed Academic Conferences: Institute for Industrial & Systems Engineering, American Society for Engineering Management

International Conference Session Chair, *2016- Present*
American Society for Engineering Management (ASEM) International Annual Conference (IAC); (2017, 2018, 2019, 2020, 2021)

Institute of Industrial & Systems Engineering (IISE) Industrial & Systems Engineering Research Conference (ISERC); (2016, 2017, 2018, 2020)

Community Service & Outreach

UCF STEM Day, University of Central Florida, *2016- Present*
Mentor undergraduate volunteers (Alpha Pi Mu/BSIE students) in developing and hosting an interactive demonstration of how Industrial Engineers contribute to production and supply chains (LEGO Assembly Line Activity). The demonstration is conducted during UCF STEM Day, which occurs once per semester and focuses on exposing local secondary school students to STEM fields.

UCF Camp Connect, University of Central Florida, *2016- Present*
Mentor undergraduate volunteers (Alpha Pi Mu/BSIE students) in developing and hosting a series of five interactive demonstrations of core Industrial Engineering sub-disciplines and host a one-hour seminar to introduce Industrial Engineering. The demonstrations are conducted during UCF Camp Connect, which occurs during the summer semester and focuses on exposing local secondary school students to STEM fields.