BRYAN MESMER

Associate Professor of Systems Engineering

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The University of Alabama in Huntsville
uah.edu

v. September 2025

PERSONAL STATEMENT

My research reimagines systems engineering using approaches that span traditional areas of decision theory and modeling and non-traditional areas of communication arts and psychology.

I am pioneering work on system stakeholder preference representation and elicitation. To represent preferences, I am researching the benefit side of value models with a focus on the government sector, as well as blending value models with cognitive models. To elicit preferences, I am researching a diverse tool set from multiple disciplines, including games, interviews, questionnaires, improvisation, and historical data, to enable the generation of consistent preferences in systems engineering.

I am trailblazing research on systems engineering for artificial intelligence and improving decision-making in architecting. My work is investigating the emergent behaviors of AI-enabled systems from an interdisciplinary lens, including the representation of desires for AI-enabled systems through value models. My architecting work is identifying and forming rigorous methods and approaches to enable transparent and justified decisions by system architects.

SELECTED ACADEMIC EXPERIENCE

Department Chair
The University of Alabama in Huntsville (UAH)
August 2025-present — Huntsville, AL
Dept. of Industrial & Systems Engineering and Eng. Management

Director
Army Human Systems Laboratory
The University of Alabama in Huntsville (UAH)
December 2021-present — Huntsville, AL

Associate Professor
The University of Alabama in Huntsville (UAH)
August 2020-present — Huntsville, AL
Dept. of Industrial & Systems Engineering and Eng. Management

Assistant Professor
The University of Alabama in Huntsville (UAH)
August 2014-August 2020 — Huntsville, AL
Dept. of Industrial & Systems Engineering and Eng. Management

RESEARCH AREA

Reimagining Systems Engineering employing stakeholder modeling and non-traditional discipline methods

EDUCATION

Ph.D. in Mechanical Engineering
SUNY at Buffalo
January 2010-August 2012

Advisor: Dr. Christina Bloebaum
Dissertation: *Incorporation of Decision and Game Theories in Early-Stage Complex Product Design to Model End-Use*

M.S. in Mechanical Engineering
SUNY at Buffalo
August 2007-December 2009

Advisor: Dr. Christina Bloebaum
Thesis: *Incorporation of Personal Communication Devices in Multi-Environment Particle Swarm Optimization Based Evacuation Simulation*

B.S. Dual in Aerospace/ Mechanical Engineering
SUNY at Buffalo
August 2003- June 2007

SELECTED AWARDS

2024 UAH University Distinguished Research, Creative Achievement, & Scholarly Performance Award

2025 UAH COE Outstanding Faculty Research Award

2021 American Society for Engineering Management (ASEM) Meritorious Service Award

FUNDING SUMMARY

Total	$14,452,499	36 grants
PI	$8,394,656	22 grants
Co-PI/Co-I	$4,882,757	12 grants
Lead Researcher	$1,056,377	2 grants
Researcher	$118,709	3 grants

Funding Sources

Government	NASA, NSF, ALDOT, DOD, NPS, SERC, Army, LWI, NATO
Industry	Carleton, Hexagon, Ford
University	UAH

PUBLICATIONS

Book Chapters — 1 Published

Technical Reports — 4 Published

Journal Articles — 35 Published, 2 Accepted

Journals: Systems Engineering, Systems, Management and Engineering Integration, Research in Engineering Design, Safety Science, Fire Safety, Engineering Management, Teaching and Case Studies, Transactions on Professional Communication, Bulletin of the AAS, Simulation

Conference Papers — 109 Published, 0 Accepted

Societies: AAS, AHS, AIAA, ASEE, ASEM, ASME, CSER, CESUN, HFES, IEEE, IISE, ICEM, INCOSE, JANNAF, SEIDS, WCSMO

PRESENTATIONS

Conference Presentations No Paper — 82 Presented

Organizations: AI4SE, AIAA, ASEM, DCASS, DDCC, IEMS, IISE, INCOSE, NIAC, SRE, SSCET, JIFX, SERC

Poster Presentations — 61 Posters

Organizations: AAS, NIAC, NSF, UAH, CESUN, SERC

Invited Events

Invited Talks — 31 Talks

Organizations: Hexagon, KSU, NSF, RAM, UAH, USACE, UTA, VT, GWU, DoD, DARPA, NPS, NASA, AUVSI

Invited Panelist — 11 Panels

Organizations: AIAA, ASEE, SGT, CSER, SEANET, CESUN, SMD

RESEARCH STUDENTS

PhD Students – Dissertation Track

3 Graduated, 3 active

Casey Eaton — 5/2025
"Assessing the Selection and Impact of Completeness in Technical Measure Sets in Systems Engineering"

Garima Bhatia — 8/2021
"The Establishment of Mathematical Foundations for Organizational Architectures for Systems Engineers"

MS Students – Thesis Track

7 Graduated, 2 active

Kelly Campo — 8/2025
"Comparing Role Differences Among Systems Architects, Systems Designers, and Systems Engineers"

Rosemary Cortelli — 12/2024
"Analyzing Qualitative Data Collection Methods in Systems Engineering"

Tyron Hill — 12/2021
"Augmented Reality X-Ray Glasses: Design in Maintaining Visual and Temporal Coherence"

TEACHING

UAH

47 Taught, 13 Different Course #s
Ave 2.0 courses/academic semester
Student Evaluations Overall Average
Mesmer: 4.43/5 COE:4.27/5

ISU

5 Taught, 4 Different Course #s
Ave. 1.7 courses/academic semester

PROFESSIONAL SOCIETIES

INCOSE Asst. Dir. Faculty Matters
2023-Present

CESUN Treasurer
2024-Present

ASEM Fellow
2024-Present

AIAA SETC Chair
2020-2022

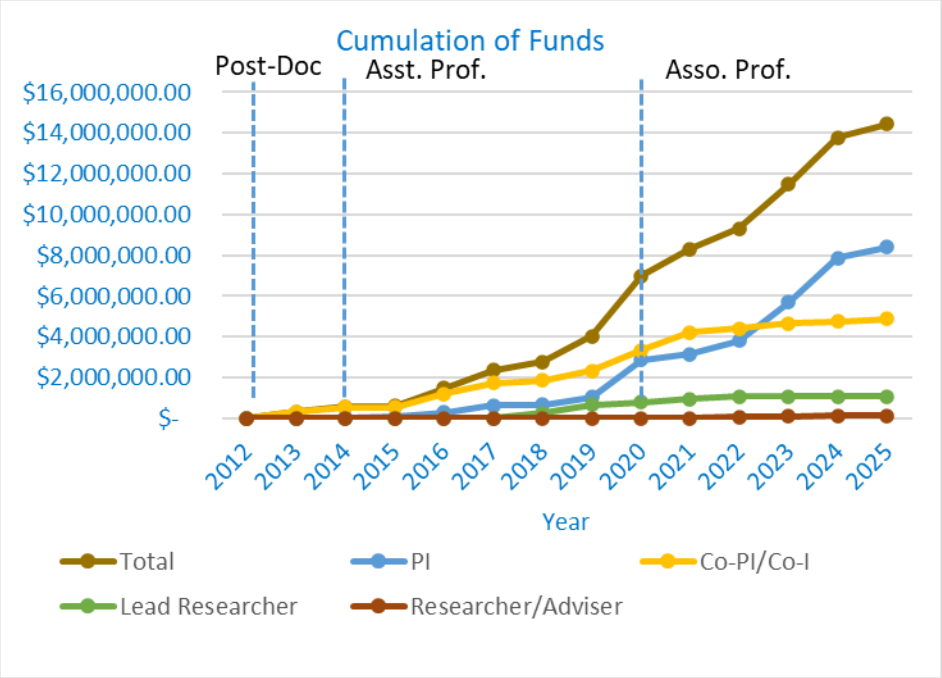
FUNDING

Total: $14,452,499
PI: $8,394,656
Co-PI/Co-I: $4,882,757
Lead Res: $1,056,377
Researcher: $118,709

Number of Grants
Total: 36
PI: 22
Co-PI/Co-I: 12
Lead Res: 2
Researcher: 3
*NASA SERC Counted as 1 for total, and 1 for both PI and Co-PI
*ART-016 Counted as 1 for total, and 1 for both PI and Co-PI
*NASA Afford counted as 1 for total, and 1 for both Lead Research and Co-I

Funding Sources
Government: NASA, NSF ALDOT, DOD, NPS, SERC, Army, LWI, NATO
Industry: Carleton, Hexagon, Ford
University: UAH

Period of Performance
Funds Awarded
Contract/Sponsor Award
UAH Account



Advancements in Human-Systems Integration Analysis and Artificial Intelligence
United States Army Research Office
July 2024-July 2027 | $1,350,000
W911NF-24-2-0158 | 23552E2D2WV
***PI: Bryan Mesmer**. Co-PIs: Vineetha Menon, Kristin Weger, Lisa Vangsness, Hanumanthrao Kannan, Howard Chen, Ana Wooley*

WRT-1078: Improving and Assessing Architectures and Architecture Decision Making
Office of the Undersecretary of Defense – Subcontract through Systems Engineering Research Center
September 2023-April 2025 - Base | $774,498.50
July 2025-September 2026 - Option | 23551U2D2GG - Base
HQ003419D0003 (0554) | 23552K2D3DZ - Option
***PI: Bryan Mesmer**. Lead Researchers: Hanumanthrao Kannan, Kristin Weger.*

September 2023	*Base Task*	*$345,922*
July 2025	*Option Task*	*$428,576.50*

Funding Cont'd

SAPIENCE: Sense and Avoid – A Cooperative Drone Competition
NATO (North Atlantic Treaty Organization) – Subcontract through City, University of London
September 2023-May 2026 $227,832.40
SPS.MYP.G6187 23551W2D2KU
PI: Bryan Mesmer. *Co-PIs: Howard Chen, Rainer Steinwandt.*

January 2024	*Milestone 1*	*$67,239.57*
September 2024	*Milestone 2*	*$54,014.04*
May 2025	*Milestone 3*	*$106,578.79*

Performance Enhancement through Human Systems Integration (HSI)
Army
September 2023- September 2025 Total: $1,000,000
W911NF2320200 multiple
PI: Bryan Mesmer*. Co-PI: Sampson Gholston. Lead Researchers: Vineetha Menon, Kristin Weger, Lisa Vangsness, Hanumanthrao Kannan, Howard Chen, Ana Wooley*

September 2023	*$300,000*	*23551V*
March 2024	*$250,000*	*23552A*
May 2024	*$150,000*	*23552B*
May 2024	*$150,000*	*23552C*
August 2024	*$150,000*	*23552D*

Funding Cont'd

NASA/MSFC Aerospace and Systems Engineering Program/ Systems Engineering Research and Technology
National Aeronautics and Space Administration
October 2015-June 2017 — Total: $704,143
NNM11AA01A — 23555228910
PI: Phillip Farrington. ***Co-PI: Bryan Mesmer.***

Funds received when I was Co-PI, totaled above, as follows:

January 2016	*$5,000*	*September 2016*	*$33,143*
March 2016	*$56,000*	*December 2016*	*$260,000*
June 2016	*$300,000*	*March 2017*	*$50,000*

June 2017-November 2022 — Total: $826,746
NNM11AA01A — multiple
PI: Bryan Mesmer.

Funds received when I was PI, totaled above, as follows:
Account 23555228910:

September 2017	*$10,000*	*April 2020*	*$47,500*
November 2017	*$150,000*	*June 2020*	*$86,596*
April 2018	*$38,800*	*August 2020*	*$28,500*
May 2019	*$104,500*	*September 2020*	*$19,000*
August 2019	*$47,500*	*December 2020*	*$95,000*
February 2020	*$58,140*	*May 2021*	*$5,998*
March 2020	*$95,212*	*June 2021*	*$59,026*

Account 23551G:
August 2021 *$40,000*

April 2022-November 2024 — Total: $230,767
80MSFC22M0001 — 23551P2D1HQ
PI: Bryan Mesmer.

April 2022	*Supplement 000*	*$85,767*
June 2022	*Supplement 002*	*$100,000*
January 2023	*Supplement 007*	*$45,000*

April 2022-December 2022 — Total: $180,000
80MSFC22M0001 — 23551N2D1HP
PI: Bryan Mesmer.

April 2022	*Supplement 000*	*$50,000*
June 2022	*Supplement 002*	*$90,000*
November 2022	*Supplement 005*	*$35,000*
November 2022	*Supplement 006*	*$5,000*

Note: I transitioned from Co-PI to PI of the NASA Systems Engineering Research Consortium on 6/1/2017. The Consortium is a continuing grant with funds received from projects I propose to NASA.

Funding Cont'd

Who Makes Johnny 5 Come Alive? Using Diverse Perspectives to Drive Requirements for Human-Robot Teams

Naval Postgraduate School - CRUSER

September 2022-September 2023 — $80,000

N6227122RC06XA1 — 2495102D1UB

PI: Kristin Weger. ***Co-PIs: Bryan Mesmer,*** *Nicholaos Jones, Amy Guerin*

Selection and Impact of Technical Measures in Large-Scale Complex Engineered Systems Design

Alabama Space Grant Consortium

April 2022-April 2023 — $37,000

80NSSC20M0044 — 20057A

April 2023-April 2024 — $37,000

80NSSC20M0044 — 20057A

April 2024-April 2025 — $37,000

80NSSC20M0044 — 20057A

PI: Gang Wang. Fellow: Casey Eaton. ***Research Mentor: Bryan Mesmer.***

Funding Cont'd

Performance Enhancement through HCI

Army

August 2019-August 2022 — Total: $553,777

W911NF1920209 — Multiple detailed below

Note: This project has been funded in multiple increments, with different Co-PIs and Lead Researchers depending on the sub-projects related to the increment. The increments are detailed below.

May 2020

2355962D0DM — $150,000

PI: Sampson Gholston. ***Co-PI: Bryan Mesmer.***

Lead Researchers: Kristin Weger, Nathan Tenhundfeld.

May 2020

2355952D0DL — $50,000

PI: Sampson Gholston. ***Co-PI: Bryan Mesmer.***

June 2021

23551B2D0YK — $100,000

PI: Sampson Gholston. ***Co-PI: Bryan Mesmer.***

Lead Researchers: Kristin Weger, Nathan Tenhundfeld, Vineetha Menon.

August 2021

23551C2D13J — $83,104

PI: Sampson Gholston. ***Co-PIs: Bryan Mesmer****, Vineetha Menon.*

August 2021

23551D2D13N — $50,000

PI: Sampson Gholston. ***Co-PIs: Bryan Mesmer****, Kristin Weger.*

January 2022

23551K2D1CF — $120,673

PI: Sampson Gholston. ***Co-PI: Bryan Mesmer.***

Lead Researchers: Kristin Weger, Nathan Tenhundfeld, Vineetha Menon.

Funding Cont'd

Testing & Evaluation for Soldier-Device Teaming Compatibility, Vulnerability, and Durability in Emergent Situations: How to assess the efficacy of AI in human agent teams

Army - Subcontract through Northeastern University

January 2022-Janary 2024 — $300,000

W911NF2220001 (555080-78056) — 23551L2D1DC

PI: Bryan Mesmer. *Co-PIs: Kristin Weger, Sampson Gholston, Vineetha Menon, Nathan Tenhundfeld*

January 2023-Janary 2025 — $1,200,000

W911NF2220001 (555092-78053) — 23551SD222

PI: Bryan Mesmer. *Co-PIs: Sampson Gholston, Kristin Weger, Vineetha Menon, Nathan Tenhundfeld*

Formation, Implementation, and Verification of Requirements for Human-Autonomy Teaming

Naval Postgraduate School - CRUSER

September 2021-September 2022 — $140,000

N002442120004 — 2495082D17A

PI: Kristin Weger. ***Co-PIs: Bryan Mesmer****, Nathan Tenhundfeld, Nicholaos Jones*

Artificial Intelligence Driven Terrain Detection and Automated Decision Making in Mobile Robot Systems

Leonard Wood Institute – Subcontract through Missouri University of Science and Technology

September 2021-July 2023 — $260,057

W911NF2120266 (00075943-01) — 2545492D19W

PI: Vineetha Menon. ***Co-PIs: Bryan Mesmer,*** *Tathagata Mukherjee, Sampson Gholston.*

WRT-1058: Systems Engineering Modernization Policy, Practice, and Workforce Roadmaps

Office of the Undersecretary of Defense – Subcontract through Systems Engineering Research Center

September 2021-March 2023 — $160,000

HQ003419D0003 (2103269-02) — 23551J2D1A2

PI: Bryan Mesmer*. Co-PI: Kristin Weger, Amy Guerin.*

Funding Cont'd

UAH-ALDOT Mentor Protégé Program
Alabama Department of Transportation
August 2021-December 2022 — Total: $254,588
21-02192 — 23551E2D14L

August 2021	*Original*	*$240,690*
October 2022	*Supplement*	*$13,898*

PI: Sampson Gholston. ***Co-PI: Bryan Mesmer.***

Spring 2021 - Application of Emerging Model-Based Systems Engineering Approaches
Ford Motor Company
December 2020-May 2021 — $21,582
PO 2063511 — 23551A2D0SU
PI: Bryan Mesmer.

WRT-1028: Validation Framework for Assuring Adaptive and Learning-Enabled Systems
Office of the Undersecretary of Defense – Subcontract through Systems Engineering Research Center
October 2020-October 2021 — $238,677
W15QKN-18-D-0040 (2103142-01) — 2355982D0RR
PI: Bryan Mesmer. *Co-PI: Paul Collopy.*
Lead Researchers: Daniel Shapiro, Nicholaos Jones

Motivating Use of Unmanned Assets in Human-Autonomy Teaming
Naval Postgraduate School - CRUSER
September 2020-August 2022 — $90,000
N00244-20-2-0004 — 2355972D0P7
PI: Bryan Mesmer. *Co-PI: Kristin Weger.*
Lead Researcher: Nathan Tenhundfeld.

Application of Emerging Model-Based Systems Engineering Approaches
Ford Motor Company
August 2020-December 2020 — $19,372
PO 2031312 — 2355992D0SK
PI: Bryan Mesmer.

Funding Cont'd

ART-016 IME Architecture Study
Army – Subcontract through Systems Engineering Research Center
March 2020-July 2020 | $800,000
W15QKN-18-D-0040 (2103060-01) | 2355932D08V
PI: Paul Collopy. ***Co-PI: Bryan Mesmer***

August 2020-March 2023 | $1,023,882
W15QKN-18-D-0040 (2103060-01) | 2355932D08V
PI: Bryan Mesmer. *Co-PI: Paul Collopy*
Lead Researcher: Kristin Weger, Amy Guerin.

Note: I transitioned from Co-PI to PI of this grant on 8/1/2020.
Note: The incremental funding received prior to 8/1/2020 was $800,000. This is the amount associated to when I was Co-PI, with the remainder of the $1,823,882 total associated to when I was PI.

Autonomous Systems Adoption Challenges and Requirements Management Solutions
Naval Postgraduate School - CRUSER
December 2019-June 2021 | $100,000
N00244-20-2-0001 | 2355922D02Q
PI: Bryan Mesmer*. Co-I: Kristin Weger*

On-The-Job Training Supportive Services (OJT/SS) Program Pre-Apprentice Training Program (PATP)
Alabama Department of Transportation
August 2019-December 2020 | $113,816
19-01906 | 2355902C033
PI: Bryan Mesmer.

Funding Cont'd

UAH-ALDOT Mentor Protégé Program
Alabama Department of Transportation
August 2019-August 2021 $481,380
11-00282.7 2355872B809
PI: Sampson Gholston. ***Co-PI: Bryan Mesmer.***

RS-25 Affordability Strategies
National Aeronautics and Space Administration
November 2017-April 2023 $759,042
NNM11AA01A multiple
PI: Dale Thomas. ***Lead Researchers: Bryan Mesmer****, Kristin Weger.*
Note: This project has been funded in multiple increments, detailed below.

Funds received when I was Lead Research, totaled above, as follows:
Account 695196:

Supplement 108- Jan 2018	*$55,000*
Supplement 114- Aug 2018	*$55,000*
Supplement 121- Feb 2019	*$95,829*
Supplement 122- April 2019	*$88,063*
Supplement 130- Dec 2019	*$54,000*
Supplement 131- Feb 2020	*$49,400*
Supplement 137- Sept. 2020	*$90,250*
Supplement 142- Feb 2021	*$47,500*
Supplement 146- June 2021	*$70,000*
Supplement 151- Nov 2021	*$50,000*

Account 695A2G:

Supplement 001- Jul 2022	*$84,000*
Supplement 006- Dec 2022	*$20,000*

April 2023-October 2025 $467,200
80MSFC22M0001 695A2G
PI: Dale Thomas. ***Co-I: Bryan Mesmer****. Lead Researcher: Kristin Weger.*
Note: This project has been funded in multiple increments, detailed below.

Funds received when I was Co-I, totaled above, as follows:
Account 695A2G:

Supplement 010- Apr 2023	*$50,000*
Supplement 012- Jul 2023	*$116,000*
Supplement 017-Nov 2023	*$67,200*
Supplement 024-May 2024	*$84,000*
Supplement 036-Jan 2025	*$150,000*

Funding Cont'd

Improving Engineering and Theatre through Knowledge Exchange
University of Alabama in Huntsville – College of Engineering
January 2019-August 2019 $1,500
PI: Bryan Mesmer. *Co-Is: Amy Guerin, Kristin Weger.*

Identifying and Analyzing Preferences for the Next Decade of Astrophysics Part II
National Aeronautics and Space Administration
January 2019-February 2019 $11,830
PI: Bryan Mesmer. *Co-PI: Kristin Weger.*

Mechanical and Aerospace Engineering Assistance for Transfer Improvement and Excellence
National Science Foundation
August 2018-May 2019 $1,000
PI: Kavan Hazeli. Co-PI: Kunning Xu. ***Undergraduate Researcher Mentor: Bryan Mesmer.***
Note: I am a mentor for an undergraduate researcher. $1,000 is provided for this mentoring as part of the $999,911 project.

Degraded Visual Environment Cueing Usability Task
Department of Defense
July 2018-August 2018 $4,448
PI: Gary Maddux. ***Researcher: Bryan Mesmer.***

Identifying and Analyzing Preferences for the Next Decade of Astrophysics
National Aeronautics and Space Administration
June 2018-August 2018 $7,069
PI: Bryan Mesmer*. Co-PI: Kristin Weger.*

Marsbee - Swarm of Flapping Wing Flyers for Enhanced Mars Exploration
National Aeronautics and Space Administration
May 2018-February 2019 $124,999
PI: Chang-Kwon Kang. ***Co-Is: Bryan Mesmer,*** *Farbod Fahimi, Robert Griffin, David Brian Landrum, Guangsheng Zhang, TaeYoung Lee (George Washington University).*

UAH-ALDOT Mentor Protégé Program
Alabama Department of Transportation
May 2017-May 2019 $481,380
PI: Sampson Gholston. ***Co-PI: Bryan Mesmer.***

Funding Cont'd

Scintillation Prediction Observations Research Task (SPORT)
National Aeronautics and Space Administration
March 2017-August 2020 $185,086
PI: Bryan Mesmer.
Note: This project is part of a larger $2,479,008 SPORT project, with PI: James Spann (NASA). Co-Is: Rebecca Bishop (Aerospace Corporation), Linda Krause (NASA), Rod Heelis (University of Texas at Dallas), Guan Le (NASA), Joaquim Costa (Brazilian Institute of Space Research), Clezio De Nardin (Brazilian Institute of Space Research), Otavio Durao (Brazilian Institute of Space Research), Luis Loures (Instituto Tecnologico de Aeronautica), Charles Swenson (Utah State University).

UAH-ALDOT Business Development Program
Alabama Department of Transportation
September 2016-September 2017 $215,857

PI: Bryan Mesmer. *Co-PI: Sampson Gholston.*

Investigation into Predictive Controller Parameters for Sinusoidal like Systems
Carleton Technologies Inc./Cobham PLC
December 2015-August 2016 $30,337
PI: Bryan Mesmer.

Gameful Design Study
Hexagon/Intergraph (Safety and Infrastructure)
December 2015-May 2016 $10,000
PI: Bryan Mesmer.

High Fidelity Multi-Man Rotorcraft Simulation Environment
University of Alabama in Huntsville – Research Infrastructure Fund
December 2014-December 2015 $16,778
PI: Bryan Mesmer. *Co-PI: Gregory Reed.*

Exergy Analysis of the NASA Space Launch System
National Aeronautics and Space Administration
August 2014-October 2015 $2,261
PI: Phillip Farrington. ***Researcher: Bryan Mesmer.***
Note: This is a sub-project of the NASA Systems Engineering Research Consortium before I became Co-PI and eventually PI.

Funding Cont'd

Collaborative Research: Visual Analytics for Creation of Value Functions in Complex Systems Design Under Uncertainty

National Science Foundation

August 2014-July 2017 $215,233

PI: Christina Bloebaum (Iowa State University). ***Co-PIs: Bryan Mesmer*** *(Iowa State University), Eliot Winer (Iowa State University).*

Note: This project is a collaboration with Pennsylvania State University receiving an additional $184,767 with PI: Timothy Simpson. Co-PI: Michael Yukish

Note: This project was awarded just prior to arriving at UAH and ran during my time at UAH. I did charge to the grant while at UAH.

Collaborative Research: Organizational and Uncertainty Impacts of Couplings in a System Design Framework

National Science Foundation

August 2013-July 2017 $320,000

PI: Christina Bloebaum (Iowa State University). ***Co-PI: Bryan Mesmer*** *(Iowa State University).*

Note: This project is a collaboration with University of Illinois at Urbana-Champaign receiving an additional $240,000 with PI: Ali Abbas

Note: This project was awarded prior to arriving at UAH and ran during my time at UAH. I did charge to the grant while at UAH.

STARTUP FUNDING

Mesmer Assistant Professor Startup

The University of Alabama in Huntsville

August 2014-August 2017

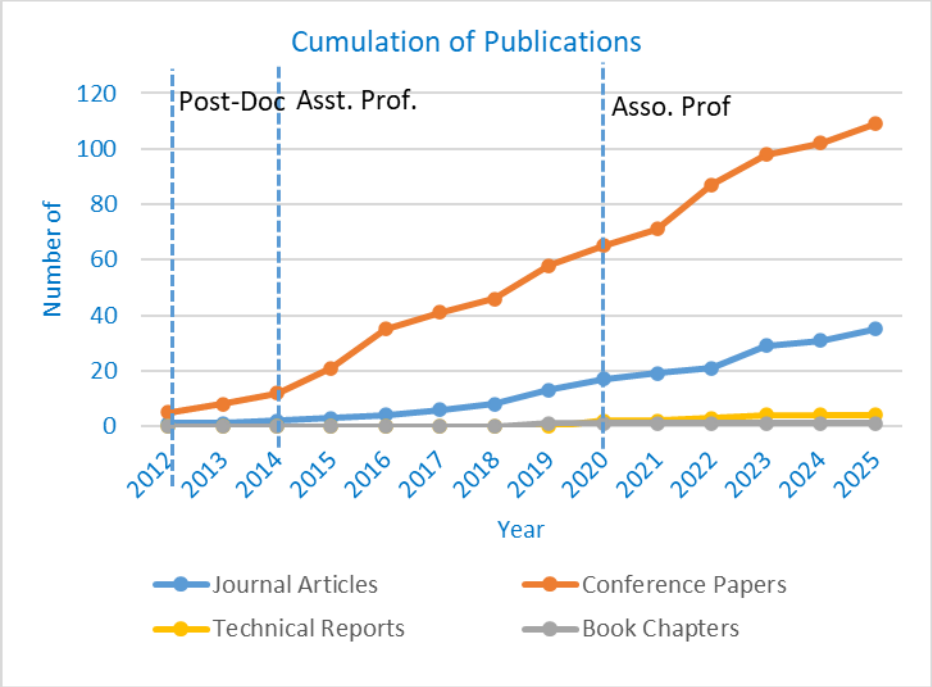
2 Journals (J7, J9)
6 Conf. Papers (C16, C18, C27, C28, C34, C40)
6 Pres. (R1, R3, R4, R6, R8, R11)
2 Posters (O1, O4)

1 PhD (PD2)
3 MSs (MT3, MT2, MT1)
1 BS (BC1)

PUBLICATIONS

Totals

Book Chapters:	1
Technical Reports:	4
Journal Articles:	35
Conference Papers:	109



BOOK EDITOR

Published: 1

E1. **Mesmer, B.,** Beruvides, M., Dixon, G., Gandhi, S., Shah, H., The Engineering Management Handbook 3rd Edition. American Society of Engineering Management, February 2023, ISBN: 978-8-9853334-1-1

JOURNAL SPECIAL ISSUE GUEST EDITOR

Published: 1

G1. Salado, A., Golkar, A., **Mesmer, B.,** Kannan, H., Space System Engineering, Special Issue of Aerospace, articles published 2022-2023

BOOK CHAPTERS

Published: 1

B1. **Mesmer, B.,** 'Challenges in Modeling of Stakeholders in Systems Engineering: From End Users to Designers, Individuals to Groups', in Flumerfelt, S., Schwartz, K., Mavris, D., Briceno, S., *Complex Systems Engineering: Theory and Practice*. American Institute of Aeronautics and Astronautics, Progress in Astronautics and Aeronautics, April 2019, ISBN: 978-1-62410-564-7

TECHNICAL REPORTS

Published: 4

TP4. Mcdermott, T., **Mesmer, B.,** Nil, E., "Systems Engineering Modernization Policy, Practice, and Workforce Roadmaps", Systems Engineering Research Center, April 2023

TP3. Watson, M., **Mesmer, B.,** Roedler, G., Rousseau, D., Calvo-Amodio, J., Keating, C., Miller, W., Lucero, S., Gold, R., Jones, C., Long, D., Russell, R., Sedmak, A., "Systems Engineering Principles", International Council on Systems Engineering (INCOSE), August 2022

Technical Reports Cont'd

TP2. Watson, M.D., **Mesmer, B.L.,** Farrington, P.A., "Engineering Elegant Systems: The Practice of Systems Engineering", NASA/TP-20205003646, July 2020

TP1. Watson, M.D., **Mesmer, B.L.,** Farrington, P.A., "Engineering Elegant Systems: Theory of Systems Engineering", NASA/TP-20205003644, July 2020

JOURNAL ARTICLES

Published:	35
Accepted for publication:	2
In Process:	5

Published or Accepted for Publication

Note: Supervised students underlined

J37. Eaton, C., Glandon, K., Teper, T., **Mesmer, B.,** Ferreira, S., "Conflicting Perceptions of Project Success and Failure Relationships: A Systematic Literature Review", *accepted to Engineering Management Journal, March 2025*

J36. Yeazitzis, T., White, C., Eaton, C., Weger, K., **Mesmer, B.**, Thomas, D., "Employee Perceptions of Affordability at NASA MSFC", *accepted to Engineering Management Journal, March 2025*

J35. Symasek, L., Yeazitzis, T., Weger, K., **Mesmer, B.,** "Recent Developments in Individual Difference Research to Inform the Adoption of AI Technology", *Systems*, February 2025, Volume 13, Issue 3

J34. Van Bossuyt, D., Allaire, D., Bickford, J., Bozada, T., Chen, W., Cutitta, R., Cuzner, R., Fletcher, K., Giachetti, R., Hale, B., Huang, H., Keidar, M., Layton, A., Ledford, A., Lesse, M., Lussier, J., Malak, R., **Mesmer, B.,** Mocko, G., Oriti, G., Selva, D., Turner, C., Watson, M., Wooley, A., Zeng, Z., "The Future of Digital Twin Research and Development", *ASME Journal of Computing and Information Science in Engineering,* August 2025, Volume 25, Issue 8

J33. Teper, T., Campo, K., Eaton, C., Bhatia, G., **Mesmer, B.,** "Considerations for Implementation of Model-Based Systems Engineering in Different Sectors and System Types Based on Academic Literature", *Systems Engineering*, July 2025, Volume 28, Issue 4

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C31. Jung, S., Simpson, T., Bloebaum, C., Kannan, H., Winer, E., **Mesmer, B.,** "A Value-Driven Design Approach to Optimize a Family of Front-Loading Washing Machines", ASME 2016 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, Charlotte, NC, August, 2016

C30. Bott, M., **Mesmer, B.,** "A Vision of a Theoretical Basis for Model-Based Systems Engineering", 5th International Engineering Systems Symposium (CESUN 2016), Washington DC, June, 2016

C29. Gilbert, A., **Mesmer, B.,** "Exergy Based Optimization of Rocket System Staging Times", IEEE 2016 Annual Systems Conference (SysCon 2016), Orlando, FL, April, 2016

C28. Clerkin, J., **Mesmer, B.,** "Gamification of Incentives and Mechanism Design in Systems Engineering", IEEE 2016 Annual Systems Conference (SysCon 2016), Orlando, FL, April, 2016

C27. Palma, G., **Mesmer, B.,** "A Vision for Storytelling in Preference Communication", 2016 Conference on Systems Engineering Research (CSER 2016), Huntsville, AL, March, 2016

C26. Gilbert, A., **Mesmer, B., "**Uses of Exergy in Systems Engineering", 2016 Conference on Systems Engineering Research (CSER 2016), Huntsville, AL, March, 2016

C25. Murugaiyan, S., Kannan, H., **Mesmer, B.,** Abbas, A., Bloebaum, C. L., "A Comprehensive Study on Modeling Requirements into Value Formulation in a Satellite System Application", 2016 Conference on Systems Engineering Research (CSER 2016), Huntsville, AL, March, 2016

C24. Tettey, A., Dyas, J., Thomas, L., **Mesmer, B.,** Collopy, P., "Control Theory Versus Prediction in Systems Engineering", 2016 Conference on Systems Engineering Research (CSER 2016), Huntsville, AL, March, 2016

C23. Kannan, H., **Mesmer, B.,** Bloebaum, C.L., "Incorporation of Risk Preferences in a Value-Based Systems Engineering Framework for a Satellite System", AIAA Science and Technology Forum 2016, San Diego, CA, January, 2016

C22. Subramanian, T., Khol, A., Kannan, H., Winer, E., Bloebaum, C.L., **Mesmer, B.,** "Understanding the Impact of Uncertainty on the Fidelity of the Value Model", AIAA Science and Technology Forum 2016, San Diego, CA, January, 2016

C21. Watson, M.D., Gilbert, A., **Mesmer, B.,** "Launch Vehicle Exergy Analysis", Proceedings of the 43rd Structures and Mechanical Behavior, JANNAF, Salt Lake City, UT, December, 2015

C20. **Mesmer, B.,** Farrington, P., "A Brief Review of Systems Engineering Programs and a Vision for the Future of Systems Engineering Education", ASEM 2015 International Annual Conference, Indianapolis, IN, October, 2015

C19. Kannan, H., Tibor, E., **Mesmer, B.,** Bloebaum, C.L. "Incorporation of Coupling Strength Models in a Value-Based Systems Engineering Framework for Optimization", AIAA Aviation 2015, Dallas, TX, June, 2015

C18. Topcu, T., **Mesmer, B.** "Customer, Commercial and Government Value Functions for Electric Vehicle System Design", IIE Annual Conference and Expo 2015, Nashville, TN, May, 2015

Conference Papers Cont'd

C17. Gilbert, A., **Mesmer, B.,** Watson, M. "Exergy Analysis of Rocket Systems", 9th Annual IEEE International Systems Conference, Vancouver, BC, April, 2015

C16. Collopy, P.D., **Mesmer, B.,** "Report on Science of Systems Engineering Workshop", AIAA Science and Technology Forum 2015, Kissimmee, FL, January, 2015

C15. Kwasa, B., Bloebaum, C.L., **Mesmer, B.,** Kannan, H., Tibor, E., "Value Impact of an Organization Structure in the Context of Value-Driven Design", AIAA Science and Technology Forum 2015, Kissimmee, FL, January, 2015

C14. Goetzke, E., Bloebaum, C.L., **Mesmer, B.,** "Value-Driven Design of Non-Commercial Systems using Bargain Modeling", AIAA Science and Technology Forum 2015, Kissimmee, FL, January, 2015

C13. Hupman, A., Abbas, A., Tibor, E., Kannan, H., Bloebaum, C.L., **Mesmer, B.,** "Calculating Value Gaps Induced by Independent Requirements, Deterministic Modeling, and Fixed Targets", AIAA Science and Technology Forum 2015, Kissimmee, FL, January, 2015

C12. Miller, S., Simpson, T., Yukish, M., Stump, G., **Mesmer, B.,** Tibor, E., Bloebaum, C.L., Winer, E., "Toward a Value-Driven Design Approach for Complex Engineered Systems Using Trade Space Exploration Tools", Proceedings of the ASME 2014 International Design Engineering Technical Conference & Computers and Information in Engineering Conference (IDETC/CIE 2014), Buffalo, NY, August, 2014

C11. Kannan, H., Bloebaum, C.L., **Mesmer, B.,** "Incorporation of Coupling Strength Models in Decomposition Strategies for Value-Based MDO", 14th AIAA Aviation Technology, Integration, and Operations Conference, Atlanta, GA, June, 2014

C10. Goetzke, E., Bloebaum, C.L., **Mesmer, B.,** "Profit and Operational-Based Value Functions", 14th AIAA Aviation Technology, Integration, and Operations Conference, Atlanta, GA, June, 2014

C9. Tibor, E., **Mesmer, B.,** Bloebaum, C.L., Miller, S., Simpson, T., "Visualization of System Decomposition in a Value-Based Framework", 14th AIAA Aviation Technology, Integration, and Operations Conference, Atlanta, GA, June, 2014

C8. **Mesmer, B.,** Bloebaum, C.L., "Addressing Risk in Design Through Decision Analysis in MDO/VDD Frameworks", 10th World Congress of Structural and Multidisciplinary Optimization (WCSMO), Orlando, FL, May, 2013

C7. **Mesmer, B.,** Bloebaum, C.L., Kannan, H., "Incorporation of Value-Driven Design in Multidisciplinary Design Optimization", 10th World Congress of Structural and Multidisciplinary Optimization (WCSMO), Orlando, FL, May, 2013

C6. Bloebaum, C.L., **Mesmer, B.,** "Teaching Multidisciplinary Design Optimization (MDO) in a Reconfigurable Interactive Classroom", 10th World Congress of Structural and Multidisciplinary Optimization (WCSMO), Orlando, FL, May, 2013

C5. **Mesmer, B.,** Bloebaum, C.L., "Use of an End-User Decision Model to Improve Robustness in Multidisciplinary Design Optimization", 14th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference (MA&O), Indianapolis, IN, September, 2012

Conference Papers Cont'd

C4. **Mesmer, B.,** Bloebaum, C.L., "Representation of Information in Large-Scale, Complex System End-User Decision Models", 14th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference (MA&O), Indianapolis, IN, September, 2012

C3. Collopy, P., Bloebaum, C. L., **Mesmer, B.,** "The Distinct and Interrelated Roles of Value-Driven Design, Multidisciplinary Design Optimization, and Decision Analysis", 14th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference (MA&O), Indianapolis, IN, September, 2012

C2. **Mesmer, B.,** Bloebaum, C.L., "Vacate-GT: An Emergency Evacuation Simulator Incorporating a Decision and Game Theory Based Exit Decision Model", 2nd International Conference on Evacuation Modeling and Management (ICEM), Chicago, IL, August, 2012

C1. **Mesmer, B.,** Bloebaum, C.L., "Modeling Decision and Game Theory Based Pedestrian Velocity Vector Decisions in Emergency Evacuations", 2nd International Conference on Evacuation Modeling and Management (ICEM), Chicago, IL, August, 2012

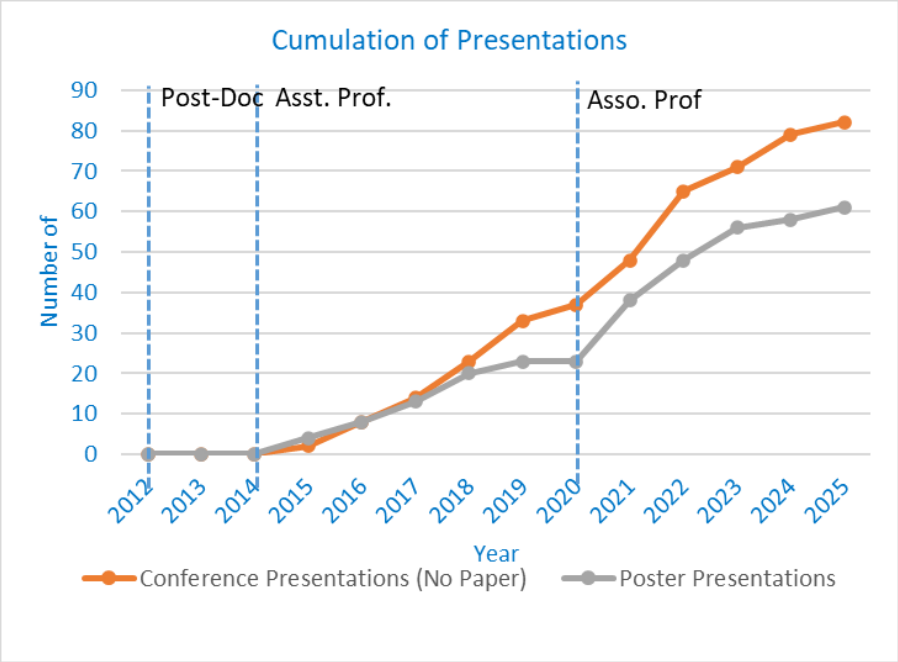
In Process (Under Review or Under Requested Revision)

Note: Supervised students underlined

PRESENTATIONS

Totals

Conference Pres.:	82
Poster Pres.:	61



CONFERENCE PRESENTATIONS (NO PAPER)

Presented:	82
To Be Presented:	0

Presented

Note: Supervised students underlined

R82. Perner, D., **Mesmer, B.,** Bossaller, D., "Requirements Traceability Using Category Theory", ASEM 2025 International Annual Conference, Boise, ID, September 26th, 2025

R81. White, C., **Mesmer, B.,** Adedokun, O., Gossman, D., Kannan, H., "An Agent-Based Perspective on Systems Engineering for AI", CESUN 2025 Conference, Washington DC, June 10th, 2025

R80. Salado, A., **Mesmer, B.,** "Scientification of Architecture – Foundations", INCOSE International Workshop 2025, Seville, Spain, February 1st, 2025

R79. Eaton, C., **Mesmer, B.,** "Impact of Technical Measure Omission in Systems Design Frameworks", SERC Doctoral Students Forum 2024, Washington DC, November 13th, 2024

R78. **Mesmer, B.,** "Improving and Assessing Architectures and Architecture Decision Making", Systems Engineering Research Center Research Review 2024, Washington DC, November 12th, 2024

R77. Gupta, S., Menon, V., Weger, K., **Mesmer, B.,** "An Investigation of Transparent Methods for Improved Human-AI Trust and Reliability in AI-Driven Autonomous Systems Applications", Society of Reliability Engineers RAM XVI 2024 Training Summit, Huntsville, AL, November 7th, 2024

R76. Powell, R., Symasek, L., Weger, K., & **Mesmer, B.,** "Acceptance and Adoption of AI Technology in the Context of Reliability and Maintainability", Society of Reliability Engineers RAM XVI 2024 Training Summit, Huntsville, AL, November 7th, 2024

R75. Sullivan, G., Weger, K., Menon, V., & **Mesmer, B.,** "AI age of RAM", Society of Reliability Engineers RAM XVI 2024 Training Summit, Huntsville, AL, November 7th, 2024

Conference Presentations Cont'd

R74. Perner, D., Eaton, C., White, C., **Mesmer, B.,** "Theoretical Feasibility of Graph Neural Networks for Augmented Intelligence in Systems Engineering", AI4SE & SE4AI Workshop, Arlington, VA, September 18th, 2024

R73. Schwalb, J., Neese, J., Roberson, J., Henneberger, G., Voss, M., Rostenbach, B., Chen, H., **Mesmer, B.,** "NATO: Science for Peace and Security Project", 3rd Annual UA System Drone Day, Huntsville, AL, July 19th, 2024

R72. Yeazitzis, T., Weger, K., **Mesmer, B.,** "Organizational Behaviors and Their Impact on Financial Resources", IEMS, Orlando, FL, March 3rd, 2024

R71. **Mesmer, B.,** "Improvements in Architecting Decision Making and Training", 15th Annual Systems Engineering Research Center Sponsor Research Review, Washington DC, November 15th, 2023

R70. White, C., **Mesmer, B.,** "Exploring Expectations and Probabilities of Superiority in Low Repetition Problems", CESUN 2023 9th International Engineering Systems Symposium, Evanston, IL, November, 2023

R69. Menon, V., Weger, K., Mesmer, B., Gholston, S., "Sentiment Analysis Based Human-Machine Teaming Dynamics Modelling for Improved Situational Awareness in Simulation Environments", 2023 IEEE International Conference on Systems, Man, and Cybernetics (SMC), Maui, Hawaii, October, 2023

R68. Mesmer, B., Menon, V., Tenhundfeld, N., Gholston, S., Weger, K., Vangsness, L., Chen, H., Kannan, H., Wooley, A., "Insights from Multidisciplinary Research on Assessment of AI Systems", AI4SE & SE4AI Virtual Workshop, Virtual, October 12th, 2023

R67. Camberos, J., Kinard, R., Johnson, S., Watson, M., **Mesmer, B.,** Perner, D., "A Primer on Category Theory for Engineers, Part 2", AIAA Dayton-Cincinnati Aerospace Sciences Symposium (DCASS), Dayton, OH, February 28th, 2023

R66. Camberos, J., Kinard, R., Johnson, S., Watson, M., **Mesmer, B.,** Perner, D., "A Primer on Category Theory for Engineers, Part 1", AIAA Dayton-Cincinnati Aerospace Sciences Symposium (DCASS), Dayton, OH, February 28th, 2023

R65. **Mesmer, B.,** "ART-016 Integrated Mission Equipment (IME) Architecture Process for Vertical Lift Systems: Insights on Making Decisions Concerning Architectures", 14th Annual Systems Engineering Research Center Sponsor Research Review, Washington DC, November 16th, 2022

R64. Leder, S., Weger, K., **Mesmer, B.,** "Requirements Formation in Interdisciplinary Teams", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022

R63. Cotter, J., Barr., H., Atchley, J., Weger, K., Menon, V., **Mesmer, B.,** Gholston, S., Tenhundfeld, N.L., "Assessment of Reliability in Autonomous Systems from Multiple Disciplines", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022

R62. Eaton, C., **Mesmer, B.,** "Systematic Review of Relationships Between Project Success and Failure", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022

R61. Schwalb, J., Menon, V., Weger, K., Tenhundfeld, N., **Mesmer, B.,** Gholston, S., "Understanding Human-AI Teaming Performance Using Autonomous Systems in Virtual Environments", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022

Conference Presentations Cont'd

R60. Pham, D., Menon, V., Weger, K., Tenhundfeld, N., **Mesmer, B.,** Gholston, S., "Analysis of AI-Driven UAV Autonomous System Simulation for Use in Hostage Rescue Scenarios", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022

R59. Yeazitzis, T., Weger, K., **Mesmer, B.,** "Biases in Stakeholder Elicitation as a Precursor to the Architecting Process", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022

R58. Campo, K., Eaton, C., Liverett, G., **Mesmer, B.,** "Analyzing Technical Measurement Guidance in Literature", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022

R57. Teper, T., Campo, K., Eaton, C., **Mesmer, B.,** "Developing Model-Based Systems Engineering Pseudo-Value Models for Industry Application", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022

R56. Bates, M., White, C., Eaton, C., **Mesmer, B.,** "Challenges in the Use of Historical Data", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022

R55. Sung, E., Menon, V., Weger, K., Tenhundfeld, N.L, **Mesmer, B.,** Gholston, G. "Evaluation of AI-based Drone Assistive Automation Systems in Search and Rescue Missions in a Simulated Environment", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022

R54. Weger, K., Leder, S., Eaton, C., Bhatia, G., **Mesmer, B.,** "Illustrating Preferences in Multi-Stakeholder System Development Projects", ASEM 2022 International Annual Conference, Tampa, FL, October 6th, 2022

R53. Schwalb, J., Menon, V., Tenhundfeld, N., Weger, K., **Mesmer, B.,** Gholston, S., "Cooperative Objective Control: Examining Human-AI Teaming Interactions and Their Impact on the Adoption of AI Systems," 11th Southeast Symposium on Contemporary Engineering Topics (SSCET), Little Rock, AR, September, 2022

R52. Pham, D., Menon, V., Tenhundfeld, N., Weger, K., **Mesmer, B.,** Gholston, S., Davis, T., " Feasibility of AI-driven Autonomous Systems for Target Detection in Operational Environment in Army Missions," 11th Southeast Symposium on Contemporary Engineering Topics (SSCET), Little Rock, AR, September, 2022

R51. Gholston, S., **Mesmer, B.,** Thomas, L., Davis, T., "Lessons Learned: University/Industry Partnership", IISE Annual Conference and Exposition 2022, Seattle, WA, May 2022

R50. Shapiro, D., **Mesmer, B.**, Jones, N., Collopy, P., Stevens, J., "Towards a Tool for Managing Validation Arguments in Systems Engineering", Workshop on the Verification of Autonomous Systems at the 39th IEEE International Conference on Robotics and Automation, Philadelphia, PA, May 23rd, 2022

R49. Falcon, A., Gholston, S., **Mesmer, B.,** "Applying the Design for Six Sigma Approach to an Interdisciplinary Research Center at UAH", IEMS, Clearwater Beach, FL, March 13th, 2022

Conference Presentations Cont'd

R48. Glandon, K.L., Eaton, C., and **Mesmer, B.,** "Improving Reliability through Failure Classification: Possible Implementation Paths", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1st, 2021

R47. Patel, S., Eaton, C., and **Mesmer, B.,** "The Impact of the Faster, Better, Cheaper Movement at NASA on Perceptions of Failure and Success of NASA Projects", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1st, 2021

R46. Eaton, C. and **Mesmer, B.,** "When Do Measures Fail? Understanding the Pitfalls of Technical Measures in Engineering Design Through Case Studies Illustrating Goodhart's Law", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1st, 2021

R45. Teper, T., Campo, K., Eaton, C., and **Mesmer, B.,** "Qualifying the Value of Life-Cycle Process Models to System Development", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1st, 2021

R44. Campo, K., Teper, T., Eaton, C., and **Mesmer, B.,** "Model-Based Systems Engineering: Investigating Reliability and Maintainability", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1st, 2021

R43. Perner, D., **Mesmer, B.,** "Leveraging SysML for Reliability Analysis with Category Theory", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1st, 2021

R42. Shapiro, D., **Mesmer, B.,** Jones, N., Collopy, P., Stevens, J., "Towards a Tool for Managing Validation Arguments in Systems Engineering", 13th Annual Systems Engineering Research Center Sponsor Research Review, Online, November 3rd, 2021

R41. **Mesmer, B.,** "ART-016 Integrated Mission Equipment (IME) Architecture Process for Vertical Lift Systems", 13th Annual Systems Engineering Research Center Sponsor Research Review, Online, November 3rd, 2021

R40. White, C., **Mesmer, B.,** "Reexamining the Logical Foundation of Engineering Decision Making Under Uncertainty", SERC Doctoral Students Forum, Virtual, November 4th, 2021

R39. Shapiro, D., **Mesmer, B.,** Jones, N., Collopy, P., Stevens, J., "Towards a Tool for Managing Validation Arguments in Systems Engineering", 2021 AI for SE & SE for AI Workshop, October 20th, 2021

R38. Hill, J., Gholston, S., Menon, V., Loyd, N, and **Mesmer, B.,** "Empirical Analysis of Data Science and Organizational Performance Using the Baldridge Model", IISE Lean Six Sigma and Data Science Conference, September 21st, 2021.

R37. **Mesmer, B.,** Collopy, P., "ART-016 Integrated Mission Equipment (IME) Architecture Process for Vertical Lift Systems", 12th Annual Systems Engineering Research Center Sponsor Research Review, Online, November 18th, 2020

R36. White, C., Weger, K., **Mesmer, B.**, "Examining Subcultures in Engineering Organizations", IISE Annual Conference and Expo 2020, Online, November 1st, 2020

Conference Presentations Cont'd

R35. Matsuyama, L., Weger, K., **Mesmer, B.,** Tenhundfeld, N., Van Bossuyt, D., Semmens, R., "Autonomous Systems Adoption Challenges and Requirements Management Solutions", JIFX 20-4 Technology Expo, Online, September 16th, 2020

R34. Pohyl, J., McCain, J., Sridhar, M., Kang, C., Landrum, D., **Mesmer, B.,** "Marsbees: Bio-inspired Flapping Wing Vehicles for Mars Exploration", AIAA SciTech 2020, Orlando, FL, January 6th, 2020

R33. Banks, A., Guerin, A., **Mesmer, B.,** Weger, K., "Can They Say That? Uncovering Hidden Truths Through Improv Theater", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019

R32. White, C., **Mesmer, B.,** "Addressing Finitely Repeated Problems in Engineering Decision Making Under Uncertainty", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019

R31. Martin, C., Weger, K., **Mesmer, B.,** "Assessing Affordability Culture in NASA", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019

R30. Eaton, C., Banks, A., **Mesmer, B.,** Weger, K., "What Causes Failures in Projects? Analyzing Factors in Failure Classification Schemes", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019

R29. Cavin, E., Gholston, S., **Mesmer, B.,** "Virtual Environment Software Statistical Analysis", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019

R28. Eaton, C., **Mesmer, B.,** "Analyzing Failure Classifications from a Multidisciplinary Perspective", AIAA Next Gen Technical Symposium, Huntsville, AL, September 10th, 2019

R27. Keating, C., Watson, M., Rousseau, D., **Mesmer, B.,** Roedler, G., Miller, W., Calvo-Amodio, J., "Systems Engineering Principles", INCOSE International Symposium 2019, Orlando, FL, July 24th, 2019

R26. **Mesmer, B.,** Watson, M., "Systems Engineering Principles and the Challenges in Deriving Them", IISE 2019 Annual Conference, Orlando, FL, May 20th, 2019

R25. Tettey, A., Gholston, S., **Mesmer, B.,** "Assessing the Impact of each of the Category Scores on Winning an Award for the MBNQA", Industry Engineering & Management Systems Conference 2019, Clearwater, FL, March 19th, 2019

R24. Gholston, S., **Mesmer, B.,** "Assessment of Small Business Capabilities", Industry Engineering & Management Systems Conference 2019, Clearwater, FL, March 19th, 2019

R23. White, C., **Mesmer, B.,** "A Conceptual Framework for the Incorporation of Strategic Considerations in Engineered System Pricing Decisions", AIAA NEXT GEN 2018 Technical Symposium, Huntsville, AL, October 26th, 2018

R22. Palma, G., **Mesmer, B.,** "Storytelling Elements in NASA Case Studies", AIAA NEXT GEN 2018 Technical Symposium, Huntsville, AL, October 26th, 2018

R21. White, C., **Mesmer, B.,** "Exergy Efficiency Optimization of a Rocket Launch Vehicle", Society of Reliability Engineers RAM Training Summit XI, Huntsville, AL, October 24th, 2018

Conference Presentations Cont'd

R20. Doneshwar, S., **Mesmer, B.,** "Systems Approach for the NASA MarsBee Mission", Society of Reliability Engineers RAM Training Summit XI, Huntsville, AL, October 24th, 2018

R19. Kang, C., Fahimi, F., Griffin, R., Landrum, D., **Mesmer, B.,** Zhang, G., Lee, T., Aono, H., "Marsbee – Swarm of Flapping Wing Flyers for Enhanced Mars Exploration", NIAC Symposium 2018, Boston, MA, September 25th, 2018

R18. **Mesmer, B.,** "A Reimagining of Systems Engineering through Adoption of Art Methods", 2018 SSCET (Southeast Symposium on Contemporary Engineering Topics), Huntsville, AL, August 3rd, 2018

R17. Palma, G., **Mesmer, B.,** "Content Analysis of NASA's NextStep 2 Project to Elicit Preferences", 2018 SSCET (Southeast Symposium on Contemporary Engineering Topics), Huntsville, AL, August 3rd, 2018

R16. White, C., **Mesmer, B.,** "Examining Engineered System Through Holistic Value vs. Performance Metric Lenses: An Application to Launch Vehicle Design", 2018 SSCET (Southeast Symposium on Contemporary Engineering Topics), Huntsville, AL, August 3rd, 2018

R15. Clerkin, J., **Mesmer, B.,** "A Comprehensive NASA Projects Value Model: Describing Value Contributions from Knowledge", 2018 SSCET (Southeast Symposium on Contemporary Engineering Topics), Huntsville, AL, August 3rd, 2018

R14. Clerkin, J., **Mesmer, B.,** "Congressional Value Model", Society of Reliability Engineers RAM Training Summit X, Huntsville, AL, November 9th, 2017

R13. Bhatia, G., **Mesmer, B.,** "Integrating SysML with VBD for the NEA Small Satellite Example", Society of Reliability Engineers RAM Training Summit X, Huntsville, AL, November 9th, 2017

R12. Palma, G., **Mesmer, B.,** "NASA Habitat: Framework for an Analysis of Preference Communication", Society of Reliability Engineers RAM Training Summit X, Huntsville, AL, November 9th, 2017

R11. Collopy, P., **Mesmer, B.,** "A Game Theoretic Perspective on Cost Management", ASEM 2017 International Annual Conference, Huntsville, AL, October, 2017

R10. **Mesmer, B.,** Gholston, S., "A Decision Tool to Determine Nurse Staffing", Industry Engineering & Management Systems Conference 2017, Cocoa Beach, FL, March 21st, 2017

R9. Gholston, S., Taylor, D., **Mesmer, B.,** "Best Practices to Establish Effective Mentor/Protégé Programs", Western Association of State Highway and Transportation Officials Civil Rights Training Symposium, San Diego, CA, February 21st, 2017

R8. Palma, G., **Mesmer, B.,** "Storytelling in Engineering", Society of Reliability Engineers RAM Training Summit IX, Huntsville, AL, November 3rd, 2016

R7. Bhatia, G., Bloebaum, C., **Mesmer, B.,** "A Game Theory Approach to Negotiations in Defense Acquisitions in the context of Value-Driven Design: An Aircraft System Case Study", Society of Reliability Engineers RAM Training Summit IX, Huntsville, AL, November 3rd, 2016

Conference Presentations Cont'd

R6. Clerkin, J., **Mesmer, B.,** "Gaming in Systems Engineering", Society of Reliability Engineers RAM Training Summit IX, Huntsville, AL, November 3rd, 2016

R5. **Mesmer, B.,** "Stakeholder-Focused Engineering", 2016 Southeast Symposium on Contemporary Engineering Topics (SSCET), Jackson, MS, August, 2016

R4. Palma, G., **Mesmer, B., "**Storytelling in Preference Communication", 2016 Southeast Symposium on Contemporary Engineering Topics (SSCET), Jackson, MS, August, 2016

R3. **Mesmer, B.,** "Games for Systems Engineers", Design Computing and Cognition 2016 (DCC16): Games for Design Research and Education, Evanston, IL, June, 2016

R2. **Mesmer, B.,** "End-Users of Rotorcraft Systems and Modeling their Decisions", AHS 2015 Systems Engineering Technical Specialists' Meeting, Huntsville, AL, September, 2015

R1. **Mesmer, B.,** "Design of Complex Engineered Systems", AIAA Complex Aerospace Systems Exchange (CASE) Academic Forum, Dallas, TX, June, 2015

To Be Presented

Note: Supervised students underlined

POSTER PRESENTATIONS

Presented: 61
To be Presented: 0

Presented

Note: Supervised students underlined

O61. Eaton, C., **Mesmer, B.**, "Technical Measure Omission Impacts in System Concept Selection," CESUN 2025 Conference, Washington DC, June, 2025

O60. Gupta, S., Menon, V., Weger, K., **Mesmer, B.**, "An Investigation of Transparent Methods for Improved Human-AI Trust and Reliability in AI-Driven Autonomous Systems Applications," UAH Graduate Poster Session, Huntsville, AL, March, 2025

O59. Wright, D., Menon, V., Weger, K., **Mesmer, B.**, "Augmented Reality Hostage Rescue Simulation: Bridging AI Explanations and Human Decision-Making," UAH Graduate Poster Session, Huntsville, AL, March, 2025

O58. Adhami, S., Weger, K., **Mesmer, B.**, Thomas, L., "An Evaluation of Concepts Related to Affordability in Military Domains" UAH Research Horizons Day & Research Week. March, 2024.

O57. Teper, T., Campo, K., Eaton, C., **Mesmer, B.,** "Considerations for MBSE Implementation in Different Sectors and System Types Based on Academic Literature", UAH Research Horizons Day & Research Week. March, 2024.

O56. Eaton, C., Longhurst, A., **Mesmer, B.,** "How Should Technical Measures Be Selected? An Investigation Into Published Guidance", CESUN 2023 9th International Engineering Systems Symposium, Evanston, IL, November, 2023

O55. Perner, D., **Mesmer, B.,** "Category theory concepts for systems engineering", CESUN 2023 9th International Engineering Systems Symposium, Evanston, IL, November, 2023

O54. Yeazitzis, T., Nguyen, D., May, L., Weger, K., **Mesmer, B.,** Thomas, L., "Student Perspectives of Affordability for Workforce Onboarding", 2023 River Cities Industrial and Organizational Psychology Conference, Chattanooga, TN, October, 2023

O53. Cotter, J., Barr, H., Atchley, J., Weger, K., **Mesmer, B.,** Menon, V., Gholston, S., Tenhundfeld, N., "A New Framework for an Old Idea: Overhauling Reliability to Meet Current and Future Needs", UAH Graduate Poster Session, Huntsville, AL, April, 2023

O52. Atchley, J., O'Hear, E., Barr, H., Cotter, J., Hamblin, B., Oswald, G., M**esmer, B.,** Weger, K., Gholston, S., Menon, V., Demir, M., Tenhundfeld, N., "General Loss of Trust in Complex Environments", UAH Graduate Poster Session, Huntsville, AL, April, 2023

O51. Teper, T., Campo, K., Eaton, C., **Mesmer, B.,** "Qualifying the Value of Model-Based Systems Engineering as Perceived in Academic Literature", UAH Research Horizons Day & Research Week. March, 2023.

O50. Campo, K., Teper T., Eaton, C., **Mesmer, B.,** "Comparing Life-Cycle Models for System Development Through Perceptions in Literature", UAH Research Horizons Day & Research Week. March, 2023.

O49. Wiersig, F., Wilkerson, C., Zimmerman, R., Bright, A., Manges, C., Fry, J., **Mesmer, B.,** Weger, K., Leder, S., "INCLUDE: Robot Capture the Flag", UAH E-Week Engineering Showcase 2023, Huntsville, AL, February, 2023

Poster Presentations Cont'd

O48. Teper, T., Campo, K., Eaton, C., **Mesmer, B.,** "Qualifying the Value of Model-Based Systems Engineering as Perceived in Academic Literature", Posters on the Hill 2022, Virtual, April, 2022

O47. Leder, S., Weger, K., **Mesmer, B.,** "Examining Undergraduate Student Interdisciplinary Capstone Research Experiences", UAH Graduate Poster Session, Huntsville, AL, March, 2022

O46. Yeazitzis, T., Falcon, A. K., Weger, K., & **Mesmer, B.,** "Non-Financial Aspects of Affordability Improvement at NASA", UAH Graduate Poster Session, Huntsville, AL, March, 2022

O45. Falcon, A.K., Yeazitzis, T., White, C., Eaton, C., Weger, K., **Mesmer, B.,** Thomas, L. D., "Improving Affordability Through the Eyes of Industry", UAH Graduate Poster Session, Huntsville, AL, March, 2022

O44. Eaton, C., and **Mesmer, B.,** "When a Measure Becomes a Target, It Ceases to be a Good Measure": Considering Measure "Laws" in Engineering Contexts", UAH Graduate Poster Session, Huntsville, AL, March, 2022

O43. Glandon, K., **Mesmer, B.,** "Future of Systems Engineering in a Digital Age: Understanding Connections", UAH Graduate Poster Session, Huntsville, AL, March, 2022

O42. Perner, D., **Mesmer, B.,** "Capturing Aerospace System Complexity with Category Theory", UAH Graduate Poster Session, Huntsville, AL, March, 2022

O41. Zimmerman, R., Danh, M., Leder, S., Weger, K., & **Mesmer, B.,** "Factors Contributing to the Willingness to Accept and Adopt Autonomous Systems", SEPA, Hilton Head Island, SC, March 2022

O40. Branham, N., Easly, T., Hornyak, B., Painter, R., Rigsby, T., Weger, K., Leder, S., **Mesmer, B.,** Jones, N., Menon, V., Fahimi, F., Loyd, N., Argentina, V., & Taylor, C., "Interdisciplinary Undergraduate Experience (INCLUDE): Addressing the Design of an Autonomous Robot Through an Interdisciplinary Lens", UAH Research Horizons, Huntsville, AL, March 2022

O39. Teper, T., Campo, K., Eaton, C., and **Mesmer, B.,** "Perceived Value of MBSE In the Aerospace Industry and Supporting Evidence", UAH Engineering Week Engineering Showcase, Huntsville, AL, February, 2022

O38. Eaton, C., **Mesmer, B.,** "Hidden Design Decisions: Selecting Technical Measures", SERC Doctoral Students Forum, Virtual, November, 2021

O37. White, C., **Mesmer, B.,** "Reexamining the Logical Foundation of Engineering Decision Making Under Uncertainty", SERC Doctoral Students Forum, Virtual, November, 2021

O36. Falcon, A.K., Yeazitzis, T., White, C., Eaton, C., Weger, K., **Mesmer, B.,** Thomas, L. D., "Improving Affordability Through the Eyes of Industry", 14th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2021

O35. Teper, T., Campo, K., Eaton, C., **Mesmer, B.,** "Perceived Value of MBSE in the Aerospace Industry and Supporting Evidence", 14th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2021

O34. Perner, D., **Mesmer, B.,** "Capturing Aerospace System Complexity with Category Theory", 14th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2021

Poster Presentations Cont'd

O33. Yeazitzis, T., Falcon, A., White, C., Weger, K., **Mesmer, B.,** Thomas, L., "Non-Financial Aspects of Perceived Affordability Improvement", UTC Scholar River Cities Industrial and Organizational Psychology Conference, Chattanooga, TN, October, 2021

O32. Leder, S., Weger, K., **Mesmer, B.** "Identifying and Analyzing Astronomers' Preferences for the Next Decade of NASA", UTC Scholar River Cities Industrial and Organizational (RCIO) Psychology Conference, Chattanooga, TN, October, 2021

O31. Zimmerman, R., Matsuyama, L., Weger, K., **Mesmer, B.,** "Insight into the Acceptance and Adoption of Autonomous Systems by Military Personnel", UAH Research Horizons, Virtual, March, 2021

O30. Cortelli, R., Weger, K., **Mesmer, B.,** "Psychological Attributes in Future Spaceport Concepts", UAH Research Horizons, Virtual, March, 2021

O29. Lachapelle, C., **Mesmer, B.,** "Grouping System of Systems Using Product Family Techniques and Methods", UAH Research Horizons, Virtual, March, 2021

O28. Thelen, A., **Mesmer, B.,** "Applications of Game Theory to Army Acquisitions", UAH Research Horizons, Virtual, March, 2021

O27. Eaton, C., McGukin, R., Gearhardt, L., **Mesmer, B.,** Weger, K., "Using a Failure Classification Scheme to Better Understand NASA Case Studies", UAH Research Horizons, Virtual, March, 2021

O26. Petrillo, J., **Mesmer, B.,** "Application of Software Architecture Strategies to CAS Systems", UAH Research Horizons, Virtual, March, 2021

O25. Shipman, A., Cortelli, R., Flint, A., Simon, H., Bass, H., Berhow, E., Atchley, A., Travis, M., **Mesmer, B.,** Weger, K., Argentina, V., Jones, N., Hsu, L., "Interdisciplinary Undergraduate Experience (INCLUDE): Conceptualizing a Space Ecosystem", UAH Research Horizons, Virtual, March, 2021

O24. Eaton, C., White, C., **Mesmer, B.,** "Current Topics in Mesmer Research Group", Council of Engineering Systems Universities, Virtual, February, 2021

O23. Eaton, C., Banks, A., **Mesmer, B.,** "Analyzing Failure Classification Schemes for Patterns and Trends", 12th Wernher von Braun Memorial Symposium, Huntsville, AL, September, 2019

O22. Sullivan, J., White, C., Weger, K., **Mesmer, B.,** "An Investigation of NASA Affordability Culture and Implications on Engineering Management", 12th Wernher von Braun Memorial Symposium, Huntsville, AL, September, 2019

O21. White, C., **Mesmer, B.,** "Affordability Through the Eyes of Industry: Towards a Better Understanding of the Rocket Economy", UAH Research Horizons, Huntsville, AL, March, 2019

O20. Smith, L., White, C., Lopez, V., Collopy, P., **Mesmer, B.,** Thomas, L., "Understanding the Rocket Economy", 11th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2018

O19. Doneshwar, S., Palma, G., **Mesmer, B.,** "Using Value Modeling and Design Structure Matrices for the NASA MarsBee Project", 11th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2018

O18. Bhatia, G., **Mesmer, B.,** "Implications of using a new Systems Engineering Approach in a Multi-Team International Project", 11th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2018

Poster Presentations Cont'd

O17. Kang, C., Fahimi, F., Griffin, R., Landrum, D., **Mesmer, B.,** Zhang, G., Lee, T., "Marsbee – Swarm of Flapping Wing Flying Robots for Mars Exploration", NIAC Symposium 2018, Boston, MA, September, 2018

O16. White, C., **Mesmer, B.,** Weger, K., "Identifying and Analyzing Preferences for the Next Decade of Astrophysics", 232nd AAS Meeting, Denver, CO, June, 2018

O15. Palma, G., **Mesmer, B.,** "NASA Habitat: Framework for an Analysis of Preference Communication", UAH Research Horizons, Huntsville, AL, April, 2018

O14. Bhatia, G., **Mesmer, B.,** "Evaluating benefits of SysML in Creating Value Models using NASA's NEA Scout", UAH Research Horizons, Huntsville, AL, April, 2018

O13. Palma, G., **Mesmer, B.,** "NASA Habitat: Framework for an Analysis of Preference Communication", 10th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2017

O12. Bhatia, G., **Mesmer, B.,** "Evaluating benefits of SysML in Creating Value Models using NASA's NEA Scout", 10th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2017

O11. Gilbert, A., **Mesmer, B.,** "Multidisciplinary Design Optimization of Launch Vehicles Using Exergy as an Objective", UAH Research Horizons, Huntsville, AL, April, 2017

O10. Kannan, H., Bloebaum, C.L., Abbas, A., Winer, E., Simpson, T., Yukish, M., **Mesmer, B.,** Kwasa, B., Murugaiyan, S., Salimi, E., Rajati, M., Hupman, A., Tibor, E., Subramanian, T., Kohl, A., Jung, S., Miller, S., "Collaborative Research: Organizational and Uncertainty Impacts of Couplings in a System Design Framework; Collaborative Research: Visual Analytics for Creation of Value Functions in Complex Systems Design Under Uncertainty", NSF Design Circle and ESD/SYS Grantees Workshop, Atlanta, GA, January 2017

O9. **Mesmer, B.,** "Theatre as a Surrogate for Complex Engineered Systems", NSF Design Circle and ESD/SYS Grantees Workshop, Atlanta, GA, January 2017

O8. Palma, G., **Mesmer, B.,** Dyas, J., "Storytelling in Engineering Preference Communication", 9th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2016

O7. Gilbert, A., **Mesmer, B.,** "Multidisciplinary Design Optimization of Launch Vehicles Using Exergy as an Objective", 9th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2016

O6. Clerkin, J., **Mesmer, B.,** "Game-Based Learning of Incentives in Systems Engineering", 9th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2016

O5. Millard, D., **Mesmer, B.,** "Rotorcraft Cockpit Simulation for Early End-User Design Decisions", 9th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2016

O4. Clerkin, J., **Mesmer, B.,** "How Can Systems Engineering be Improved Using Gamification", 8th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2015

Poster Presentations Cont'd

O3. Gilbert, A., **Mesmer, B.,** "Exergy Analysis of Rocket System", 8th Wernher von Braun Memorial Symposium, Huntsville, AL, October, 2015

O2. **Mesmer, B.,** Bloebaum, C.L., Abbas, A., Winer, E., Simpson, T., Yukish, M., Kannan, H., Kwasa, B., Murugaiyan, S., Salimi, E., Rajati, M., Hupman, A., Tibor, E., Subramanian, T., Kohl, A., Jung, S., Miller, S., "Collaborative Research: Organizational and Uncertainty Impacts of Couplings in a System Design Framework; Collaborative Research: Visual Analytics for Creation of Value Functions in Complex Systems Design Under Uncertainty", NSF Design Circle and ESD/SYS Grantees Workshop, Clemson, SC, November 2015

O1. Topcu, T., **Mesmer, B.,** "Customer, Commercial, and Government Value Functions for Electric Vehicle System Design", UAH Research Horizons, Huntsville, AL, April, 2015

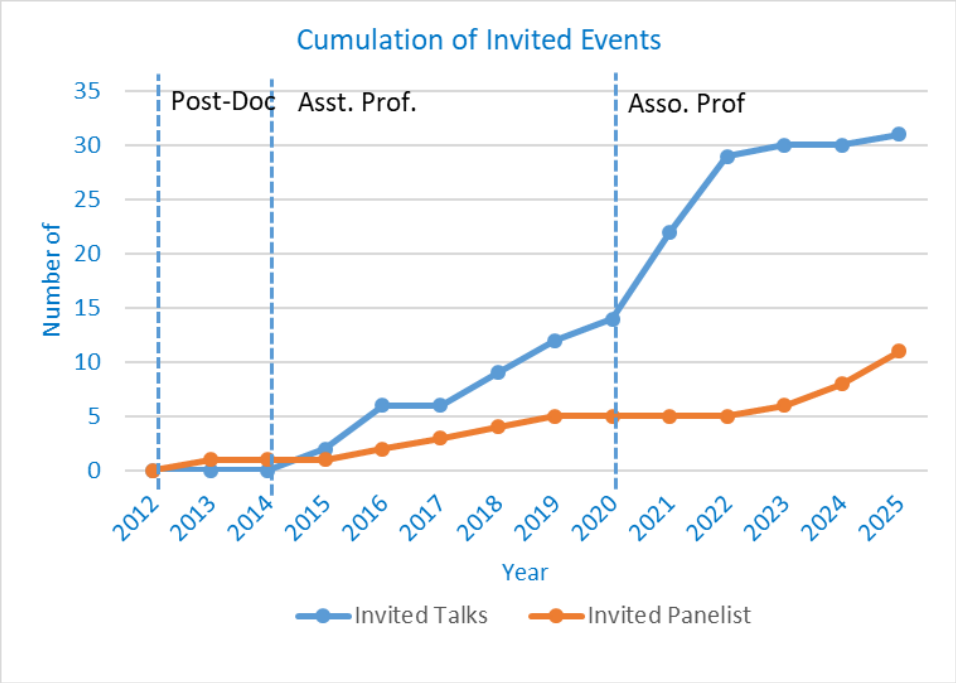
To Be Presented

Note: Supervised students underlined

INVITED EVENTS

Totals

Invited Talks: 31
Invited Panelist: 11



INVITED TALKS

Presented: 31

Presented

Note: Supervised students underlined

1. Roberson, J., **Mesmer, B.,** "SAPIENCE: Team USA; Competition 2 Overview", AUVSI Pathfinder Monthly Meeting, Huntsville, AL, July 16th, 2025
2. Bloebaum, C., **Mesmer, B.,** "Reimagining Systems Engineering", Defense Advanced Research Projects Agency (DARPA) Tactical Technology Office (TTO) Monthly All-Hands Meeting, Arlington, VA, December 6th, 2023
3. **Mesmer, B.,** "Decision Making in Architecture Development", Helicopter Military Operations Technology Meeting XIX, Hampton Roads, VA, December 8th, 2022
4. Perner, D., **Mesmer, B.**, "Category Theory as a Possible Theoretical Foundation for Systems Engineering", Compositional Structures for Systems Engineering Workshop, November 3rd, 2022
5. Campo, K., Teper, T., Eaton, C., **Mesmer, B.**, "Qualifying the Value of Model-Based Systems Engineering", NASA MBSE Leadership Team, Virtual, August 2nd, 2022.
6. Teper, T., Campo, K., Eaton, C., **Mesmer, B.**, "Qualifying the Value of Model-Based Systems Engineering", NASA Systems Engineering Technical Discipline Team Meeting, Virtual, May 4th, 2022.
7. **Mesmer, B.,** "The Intersection Between Humanities and STEM in Research", The University of Alabama in Huntsville – Research Horizons Keynote, Huntsville, AL, March 4th, 2022
8. **Mesmer, B.**, "Army Sponsored Interdisciplinary Research on Autonomous Systems", The University of Alabama in Huntsville – Engineering Advisory Board Meeting, Huntsville, AL, March 4th, 2022

Invited Talks Cont'd

9. Campo, K., Teper, T., Eaton, C., **Mesmer, B.,** "Perceived Value of MBSE", International Council on Systems Engineering (INCOSE) Huntsville Regional Chapter (HRC) Chapter Meeting, Virtual, February 17th, 2022
10. Menon, V., Tenhundfeld, N., Weger, K., **Mesmer, B.,** Gholston, S., "Comprehensive Study on the Use of AI-driven Autonomous Systems in Dynamic Environments for Military Applications", Society of Reliability Engineers RAM Training Summit XIII, Huntsville, AL, December 1st, 2021
11. Weger, K., Tenhundfeld, N.L., Menon, V., **Mesmer, B.,** Gholston, S., "Insight into the Acceptance and Adoption of Autonomous Systems by Military Personnel", Society of Reliability Engineers RAM Training Summit XIII, Huntsville, AL, December 1st, 2021
12. Tenhundfeld, N.L., Weger, K., Menon, V., **Mesmer, B.,** Gholston, S., "Teaming and Trust: Influences of Design on Operator Cognition", Society of Reliability Engineers RAM Training Summit XIII, Huntsville, AL, December 1st, 2021
13. Moreland, R., Barshi, I., Eaton, C., Gearhardt, L., Leitner, J., Liley, S., McGukin, R., **Mesmer, B.,** Olejniczak, J., Quijada, M., Weger, K., "Project Factors: A Digital Classification System to Assess Project Failures – Approaches, Insights, and Next Steps", NASA NESC Academy Human Factors Technical Discipline Team Meeting, Virtual, August 10th, 2021
14. Van Bossuyt, D., Semmens, R., **Mesmer, B.,** Weger, K., "How to Build Human-Autonomy Teams: Enabling Requirements, Adoption, and Verification", CRUSER Monthly Meeting, Virtual, August 2nd, 2021
15. **Mesmer, B.,** "Fundamental Challenges Underlying Architecting in DoD", Modular Open Systems Working Group Meeting, Virtual, June 23rd, 2021
16. **Mesmer, B.,** "Transdisciplinary Research – Unique Discoveries through Inclusion", The University of Alabama in Huntsville – Research Horizons Keynote, Virtual, March 12th, 2021
17. **Mesmer, B.,** "Reimagining Systems Engineering", George Washington University, Virtual, January 22nd, 2021
18. **Mesmer, B.,** "Eliciting, Representing, and Communicating Preferences", USACE Resource Efficiency Manager Program Workshop, Huntsville, AL, March 11th, 2020
19. **Mesmer, B.,** "Reimagining Systems Engineering", Kent State University, Kent, OH, February 7th, 2020
20. Gholston, S., **Mesmer, B.,** Petnga, L., "Virtual Environment & Software Reliability", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019
21. **Mesmer, B.,** "Challenges in Communication Consistency", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 13th, 2019
22. **Mesmer, B.,** "Reimagining Systems Engineering Using the Arts", The University of Alabama in Huntsville Honors College Lecture, Huntsville, AL, March 12th, 2019
23. **Mesmer, B.,** "Reimagining Systems Engineering Through Preferences and the Arts", University of Texas at Arlington, Arlington, TX, April 27th, 2018

Invited Talks Cont'd

24. **Mesmer, B.,** "The Art of Engineering Design and Systems Engineering", NSF Design Circle Workshop: Designing and Developing Global Engineering Systems, Corvallis, OR, March 22nd, 2018
25. **Mesmer, B.,** "Reimagining Systems Engineering Through Preferences and the Arts", Virginia Polytechnic Institute and State University, Blacksburg, VA, February 23rd, 2018
26. **Mesmer, B.,** "Game Theory", Society of Reliability Engineers RAM Training Summit IX, Huntsville, AL, November 3rd, 2016
27. **Mesmer, B.,** "Model Based Systems Engineering (MBSE)", Society of Reliability Engineers RAM Training Summit IX, Huntsville, AL, November 3rd, 2016
28. **Mesmer, B.,** "Gamification in Systems Engineering", Human Factors and Ergonomics Society Tennessee Valley Chapter, Huntsville, AL, August 9th, 2016
29. **Mesmer, B.,** Special Guest during "Hexagon Safety & Infrastructure Track Keynote", Hexagon Live 2016, Anaheim, CA, June 14th, 2016
30. **Mesmer, B.,** "Decision-Making and Value-Based Engineering Methods for Managing Programs", Project Management Institute – North Alabama Chapter Luncheon Speaker, Huntsville, AL, June 16, 2015
31. **Mesmer, B.,** "Decision-Making and Gamification in System Design and the Design Process", Huntsville New Technology User Group, Huntsville, AL, November 11, 2015

To Be Presented

INVITED PANELIST

Presented: 11

Presented

Note: Supervised students underlined

1. **Mesmer, B.,** Panelist, Strengthening Space and Missile Defense with AI, Space and Missile Defense Symposium, Huntsville, AL, August 6th, 2025
2. **Mesmer, B.,** Panelist, SE Community Synthesis, CESUN 2025 Conference, Washington DC, June 10th, 2025
3. **Mesmer, B.,** Panelist, Empowering Women Leaders in Systems Engineering – Data and Algorithm Bias in Generative AI, Conference on Systems Engineering Research, Long Beach, CA, March 19th, 2025
4. **Mesmer, B.,** Panelist, Dissemination of Knowledge, INCOSE SEANET, Virtual, October 9th, 2024
5. **Mesmer, B.,** Panelist, The Future of the Systems Academic Community, Conference on Systems Engineering Research, Tucson, AZ, March 26th, 2024
6. **Mesmer, B.,** Panelist, SE Modernization Panel, Conference on Systems Engineering Research, Hoboken, NJ, March 16th, 2023
7. **Mesmer, B.,** Panelist, Accelerating Experiential Learning with Games, ASEE Annual Conference, Tampa, FL, June 17th, 2019
8. **Mesmer, B.,** Panelist, CASE System Complexity Roundtable, AIAA Space 2018, Orlando, FL, September 18th, 2018
9. **Mesmer, B.,** Panelist, CASE Academic Roundtable, AIAA Aviation 2017, Denver, CO, June 8th, 2017

Invited Panelist Cont'd

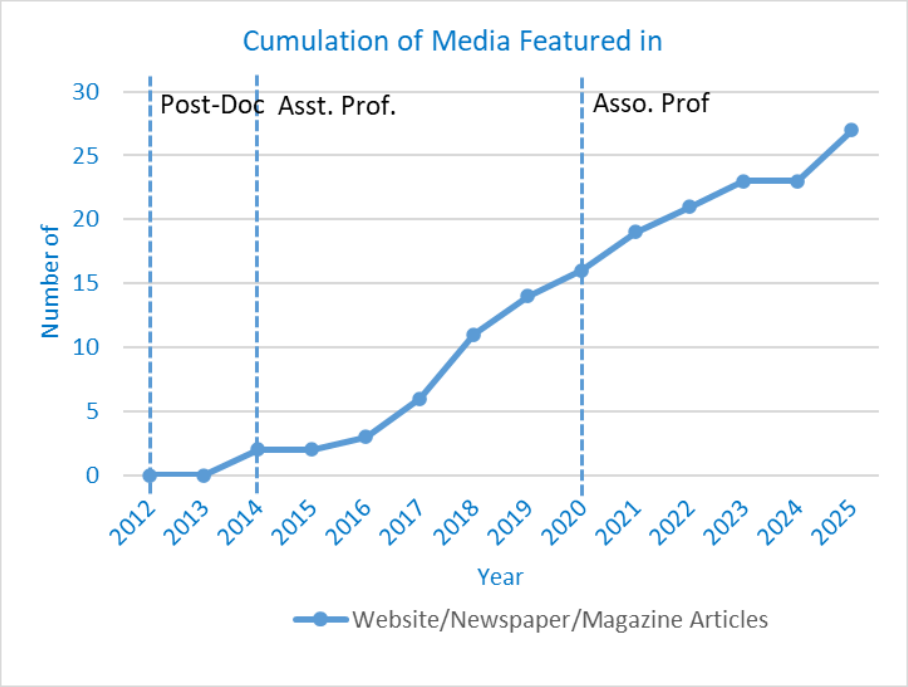
10. **Mesmer, B.,** Panelist, CASE Academics 2016 Discussion, AIAA Space Forum and Exposition 2016, Long Beach, CA, September 14th, 2016

11. **Mesmer, B.,** Sigma Gamma Tau Academia Panel, Huntsville, AL, April, 2015

MEDIA FEATURED IN

Totals

Website/Newspaper/ Magazine Articles: 27



Published

1. "Autonomous drones take flight at NATO-backed competition", North Atlantic Treaty Organization, https://www.nato.int/cps/en/natohq/news_237011.htm, July 17, 2025
2. Clark, Georgia, "Huntsville to host international NATO search and rescue drone competition", WAAY 31, https://www.waaytv.com/news/huntsville-to-host-international-nato-search-and-rescue-drone-competition/article_556063e1-dc2e-428c-ae23-285fb14b8a21.html, July 7, 2025
3. "UAH faculty secure $1.35 million Army grant to advance human-AI integration", Huntsville Business Journal, https://huntsvillebusinessjournal.com/news/2025/02/25/uah-faculty-secure-1-35-million-army-grant-to-advance-human-ai-integration, February 25, 2025
4. "Interdisciplinary UAH faculty group wins $1.35M Army grant to advance human interactions with artificial intelligence", The University of Alabama in Huntsville, https://www.uah.edu/news/news/interdisciplinary-uah-faculty-group-wins-1-35m-army-grant-to-advance-human-interactions-with-artificial-intelligence, February 18, 2025

Media Featured in Cont'd

5. "UAH researcher teams with international partners in NATO Science for Peace and Security project to help drones work together for disaster relief", The University of Alabama in Huntsville, https://www.uah.edu/news/news/uah-researcher-teams-with-international-partners-in-nato-science-for-peace-and-security-project-to-help-drones-work-together-for-disaster-relief, November 20, 2023
6. "Insights on Making Decisions Concerning Architectures", Systems Engineering Research Center, https://dev.sercuarc.org/insights-on-making-decisions-concerning-architectures/, February 16, 2023
7. "Two UAH students presented their systems engineering research at Posters on the Hill", The University of Alabama in Huntsville, https://www.uah.edu/undergraduate-research/news/17332-two-uah-students-presented-their-systems-engineering-research-at-posters-on-the-hill, September 15, 2022
8. English, J., Nelson, R., Steele, J., "INCLUDE: Grand Challenge Needs Interdisciplinary Solution", The University of Alabama in Huntsville, College of Engineering, Launch, January, 2022
9. WHNT, "UAH Earth-Based Space Port Program", WHNT 19, September 9, 2021
10. Nelson, R., "INCLUDE student program uses interdisciplinary approach to envision Earth-based space port", The University of Alabama in Huntsville, https://www.uah.edu/news/news/include-student-program-uses-interdisciplinary-approach-to-envision-earth-based-space-port, September 7, 2021
11. Steele, J., "Casey Eaton, a systems engineering doctoral student, earns Amelia Earhart Fellowship", University of Alabama in Huntsville, https://www.uah.edu/news/items/casey-eaton-a-systems-engineering-doctoral-student-earns-amelia-earhart-fellowship, July 14, 2021
12. Steele, J., "Transparency about autonomous military systems is critical to acceptance, research says", University of Alabama in Huntsville, https://www.uah.edu/news/items/transparency-about-autonomous-military-systems-is-critical-to-acceptance-research-says, December 17, 2020
13. Nelson, R., "UAH Engineering, Psychology, Theatre faculty collaborate with NASA for "intentional improv" workshops", University of Alabama in Huntsville, https://www.uah.edu/ahs/news/15043-uah-engineering-psychology-theatre-faculty-collaborate-with-nasa-for-intentional-improv-workshops, June 1, 2020
14. LaChance, D., "UAH faculty and researchers recognized with University Awards for Excellence", University of Alabama in Huntsville, https://www.uah.edu/news/people/uah-faculty-and-researchers-recognized-with-university-awards-for-excellence, April 16, 2019
15. Tolson, A., "Marsbees may may journey for Mars exploration", Redstone Rocket, Engineers Week, https://www.theredstonerocket.com/special/page_5e1b0fa7-0751-5BC154-9278-dade8eca9368.html February 13, 2019, pg. 8-9

Media Featured in Cont'd

16. LaChance, D., "Marsbee mission gets a little more real thanks to systems engineering", University of Alabama in Huntsville, https://www.uah.edu/news/research/marsbee-mission-gets-a-little-more-real-thanks-to-systems-engineering, January 8, 2019
17. Newcamp, J., "Systems Engineers Draw Lessons from Artistry", Aerospace America, December, 2018
18. Uliano, A., "Bryan Mesmer - meritorious service award, outstanding non-board member (2018)", http://www.asem.org/blog/6870628, October 23, 2018
19. Cruz, S., "ISEEM Assistant Professor Wins Award", University of Alabama in Huntsville, https://www.uah.edu/eng/departments/iseem/news/13408-iseem-professor-wins-award, October, 20, 2018
20. Grose, T., "Beeline for Mars", ASEE Prism, May 2018
21. LaChance, D., "UAH Professor's Early Stage Proposal for "Marsbees" Selected to Receive NASA Funding", University of Alabama in Huntsville, https://www.uah.edu/news/research/uah-professors-early-stage-proposal-for-marsbees-selected-to-receive-nasa-funding, April 4, 2018
22. "UAH Engineers to Develop 'Digital Twin' to Improve CubeSat Mission", Aerospace-Technology, http://www.aerospace-technology.com/news/newsuah-engineers-to-develop-digital-twin-to-improve-cubesat-mission-5961658, November 1, 2017
23. LaChance, D., "UAH Engineers Create "Digital Twin" to Improve CubeSat's Mission Success", University of Alabama in Huntsville, https://www.uah.edu/news/research/uah-engineers-create-digital-twin-to-improve-cubesat-s-mission-success, https://www.ecnmag.com/news/2017/10/uah-engineers-create-digital-twin-improve-cubesats-mission-success, October 30, 2017
24. GPS World Staff, "Joint NASA-Brazil CubeSat Mission Will Unlock Equatorial Phenomena that Affect GPS", GPS World, http://gpsworld.com/joint-nasa-brazil-cubesat-mission-will-unlock-equatorial-phenomena-that-affect-gps/, August 15, 2017
25. Tolson, A., "Class is in Session: Engineering through the eyes of The University of Alabama in Huntsville's professors", Redstone Rocket, Engineers Week, http://www.theredstonerocket.com/special/page_b9f5d43e-babb-534f-8091-dfBC278aba9fc.html, February 17, 2016, pg. 14
26. LaChance, D., "UAH College of Engineering Welcomes New Professor", University of Alabama in Huntsville, http://www.uah.edu/news/campus/uah-college-of-engineering-welcomes-new-professor, September, 09, 2014
27. Frost, L., "COE Welcomes Asst. Professor Bryan Mesmer", University of Alabama in Huntsville College of Engineering, http://www.uah.edu/eng/engineering-news/8150-engnews-bryan-mesmer, August, 04, 2014

RESEARCH STUDENTS

Totals

Graduated
- Primary Advisor

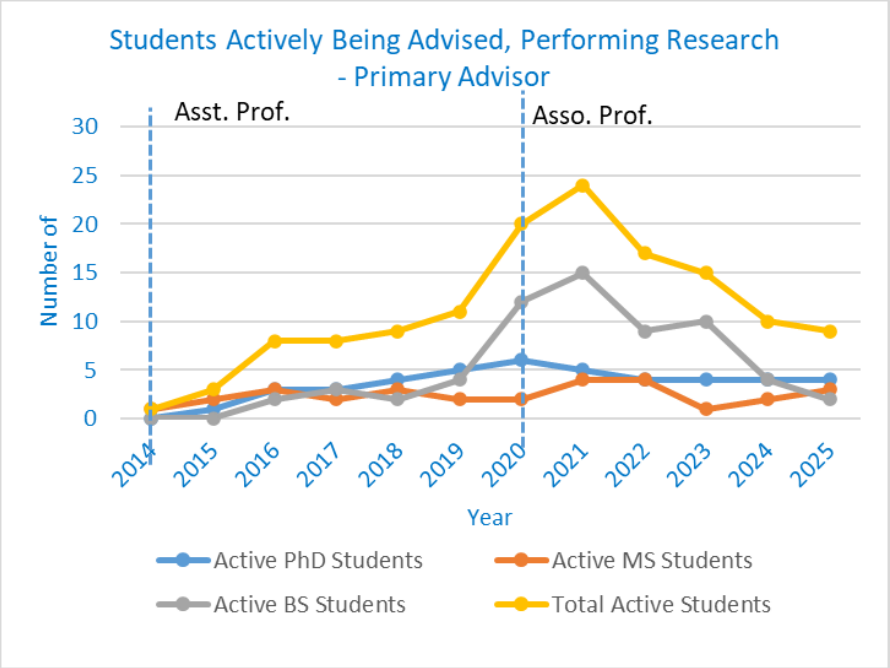
PhD with Dissertation:	3
MS with Thesis:	7

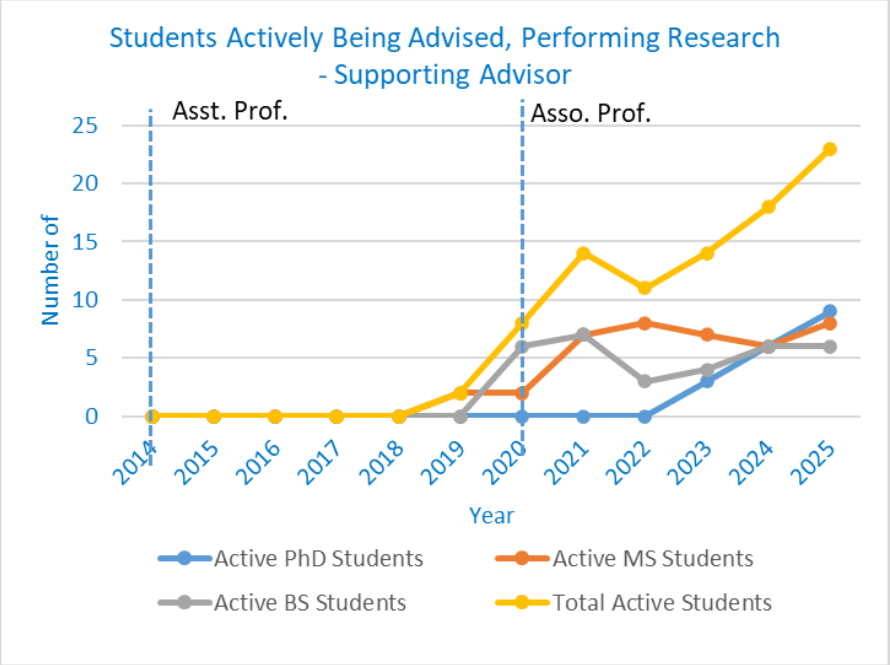
Research Advised
- Primary Advisor

PhD:	11
MS:	15
BS:	37

Research Supported (Secondary advisor or PI/Co-PI on research project)

PhD:	9
MS:	21
BS:	18





PHD STUDENTS

Research Advised: 11

Graduated with Dissertation: 3
Active: 3
Projects Completed – No Dissertation: 5

Research Supported: 9

Graduated with Dissertation: 1
Active: 7
Projects Completed – No Dissertation: 1

Graduated with Dissertation – Primary Advisor

PD3. Casey Eaton

Assessing the Selection and Impact of Completeness in Technical Measure Sets in Systems Engineering

Systems Engineering Program

August 2020 – May 2025 | May 2025

Auburn University – Asst. Prof. | NASA(SERC), ASGC

PD2. Garima Bhatia

The Establishment of Mathematical Foundations for Organizational Architectures for Systems Engineers

Systems Engineering Program

August 2016 – August 2021 | August 2021

Ford | NASA(*SPORT*), NASA(*SERC*), Ford(Fall), Ford(Spring), Start-up

PD1. Mitchell Bott

An Examination of the Theoretical Basis for Agile Engineering using Function-Behavior-Structure Framework and Agent-Based Modeling

Modeling and Simulation Program

May 2015 – December 2019 | December 2019

Northrop Grumman Technical Fellow | Company funded

Actively Researching – Primary Advisor

PA3. Cody Wheeler

Topic: Improvements in Mission Engineering

Mechanical Engineering Program

January 2023 - present | Expected December 2026

Booz Allen | Company funded

PA2. David Perner

Topic: Category Theory Applied to Systems Engineering

Systems Engineering Program

May 2021 - present | Expected December 2026

UAH Graduate Research Assistant | NASA(SERC), Army(Northeastern), SERCenter(Mod)

PhD Students Cont'd

PA1. Christopher White

Topic: Reexamining the Logical Foundation of Engineering Decision Making Under Uncertainty

Systems Engineering Program

January 2018 - present

UAH Graduate Research Assistant

Expected August 2026

NASA(*Affordability*), DOD, NASA(SERC), NASA(*Astro*), SERCenter(Mod), Army(Northeastern)

Completed Research Project – Primary Advisor

PC5. Jennifer Stevens

Topic: Arguments for System Validation

Systems Engineering Program

August 2020 – December 2022

Retired

Left Program

Self-funded

PC4. Jeffrey Dyas

Topic: Value Model Analysis of Space Launch System

Systems Engineering Program – Dissertation Advisor Paul Collopy

January 2017 – May 2017

NASA KSC Engineer

Accepted Job Offer

NASA(SERC)

PC3. Andrew Gilbert

Topic: Value Model Analysis of Space Launch System

Systems Engineering Program – Dissertation Advisor Paul Collopy

May 2016 – December 2016

unknown

Accepted Job Offer

NASA(SERC)

PC2. Joseph Clerkin

Topic: Adoption of Systems Engineering Approaches

Systems Engineering Program

May 2018 – May 2020

Rotorcraft Systems Engineering and Simulation Center Research Engineer II

Accepted Job Offer

Company funded, NASA(*SERC*)

PC1. Giulia Palma

Topic: The Role of Arts in Systems Engineering

Systems Engineering Program

January 2019 – May 2020

Dynetics

Accepted Job Offer

NASA(*SERC*), TA

Graduated with Dissertation – Research Supported

PhD Students Cont'd

PDS1. Shivangi Gupta
Topic: Autonomous Systems Virtual Environment
Computer Science – Primary Advisor Vineetha Menon
January 2023 – August 2025 | August 2025
Graduate Research Assistant | Army(Northeastern), Army (LWI)

Actively Researching – Research Supported

PAS7. Sheri Leder
Topic: Autonomy in Military Systems
Engineering Management – Primary Advisor Ana Wooley
May 2025 – present | Expected May 2029
Graduate Research Assistant | Army(LWI)

PAS6. Sai Sreekanth Geddam
Topic: Autonomy in Military Systems
Computer Science – Primary Advisor Vineetha Menon
August 2025 – present | Expected May 2029
Graduate Research Assistant | Army(LWI)

PAS5. Hailey Hicks
Topic: Drone Competition
Industrial Engineering – Primary Advisor Howard Chen
May 2025 – present | Expected May 2027
NATO Drone Team Member | NATO

PAS4. Joseph Schwalb
Topic: Drone Competition
Computer Science – Primary Advisor Vineetha Menon
January 2024 – present | Expected May 2027
NATO Drone Team Member | NATO

PAS3. Richard Stern
Topic: Autonomy in C2 Systems
Psychology – Primary Advisor Kristin Weger
August 2024 – present | Expected May 2027
Graduate Research Assistant | Army(C2), Army(LWI)

PAS2. Virginia Sullivan
Topic: Human Interactions with Autonomous Systems
Psychology – Primary Advisor Nathan Tenhundfeld
August 2023 – present | Expected May 2027
Graduate Research Assistant | Army(Northeastern), Army(LWI)

PhD Students Cont'd

PAS1. Taylor Yeazitzis
Topic: Affordability in Industry
Psychology Program – Primary Advisor Kristin Weger
May 2023 - present
Expected December 2025
Graduate Research Assistant
NASA(Affordability)

Completed Research Project – Research Supported

PCS1. Oluyinka Adedokun
Topic: Definition of AI Systems
Systems Engineering Program – Primary Advisor Hanumanthrao Kannan
January 2024 – May 2025
Expected May 2027
unknown
Army(Northeastern), Army(LWI)

MS STUDENTS

Research Advised: 15

Graduated with Thesis: 7
Active: 2
Projects Completed – No Thesis: 6

Research Supported: 21

Graduated with Thesis: 6
Active: 3
Projects Completed – No Thesis: 12

Graduated with Thesis – Primary Advisor

MT7. Kelly Campo
Comparing Role Differences Among Systems Architects, Systems Designers, and Systems Engineers
Systems Engineering Program
September 2024 – August 2025 — August 2025
Aerojet Rocketdyne — Army(Arc), Army(C2)

MT6. Rosemary Cortelli
Analyzing Qualitative Data Collection Methods in Systems Engineering
Systems Engineering Program
August 2022 – December 2024 — December 2024
Dynetics — Company funded

MT5. Tyron Hill
Augmented Reality X-Ray Glasses: Design in Maintaining Visual and Temporal Coherence
Mechanical Engineering
August 2019 – December 2021 — December 2021
MDA — Company funded

MT4. Casey Eaton
Failure Classification Schemes: Disciplinary Differences and Trends
Systems Engineering Program
May 2019 – August 2020 — August 2020
Auburn University – Asst Prof — NASA(SERC)

MT3. Giulia Palma
Storytelling Elements in NASA Case Studies
Systems Engineering Program
January 2016 - December 2018 — December 2018
Leidos — NASA(*SERC*), Start-up, NASA(Astro)

MT2. Joseph Clerkin
The Development of Incentive Structure Games for Systems Engineering Training using Multidisciplinary Principles
Systems Engineering Program
September 2015 – May 2018 — May 2018
Rotorcraft Systems Engineering and Simulation Center Research Engineer II — NASA(*SERC*), Start-up, Hexagon Carleton

MT1. Taylan Topcu
Impact of Multiple Stakeholder Preferences on Design with a Focus on Demand Models and an Application of Electric Vehicles
Systems Engineering Program
September 2014 – August 2015 — August 2015
Virginia Tech – Asst Prof — Start-up

MS Students Cont'd

Actively Researching – Thesis Track – Primary Advisor

MA2. Lisa Punton
Topic: Impact of AI-generated Decision Recommendations on Systems Engineering Decision Making
Systems Engineering
August 2025 – Present
December 2027
Raytheon
Company funded

MA1. Celeste Turner
Topic: Time-Based Architectural Decision Making
Systems Engineering
August 2025 – Present
December 2026
Graduate Research Assistant
Army(*Arc*)

Completed Research Project – Primary Advisor

MC6. John Powers
Topic: Clarity in Architecture Documentation
English
May 2022 – July 2022
unknown
unknown
SERCenter(*IME*)

MC5. Katherine Loveday Glandon
Topic: Modernization of Systems Engineering
Systems Engineering
August 2021 – October 2022
December 2023
unknown
NASA, SERCenter(Mod)

MC4. Amelia Falcon
Topic: Affordability
Systems Engineering Program
January 2021 – May 2022
May 2022
unknown
NASA(Affordability)

MC3. Jacob Smith
Topic: Verification and Validation for Autonomous Systems
Philosophy/Physics
May 2021 – August 2021
unknown
unknown
SERCenter*(WRT)*

MC2. Shahrom Doneshwar
Topic: Systems Analysis of Marsbee
Systems Engineering Program
August 2018 – December 2018
May 2019
unknown
NASA(*Marsbee*)

MS Students Cont'd

MC1. Alex Clem
Topic: Exergy Analysis of International Space Station
Mechanical and Aerospace Engineering
January 2016 – August 2016 | Accepted Job Offer
unknown | NASA(*SERC*)

Graduated with Thesis – Research Supported

MTS6.Hailey Hicks
Topic: Drone Competition
Industrial Engineering Program – Primary Advisor Howard Chen
August 2024 – May 2025 | May 2025
NATO Drone Team Member | NATO

MTS5.Joseph Andrew Atchley
Topic: Human Interactions with Autonomous Systems
Psychology – Primary Advisor Nathan Tenhundfeld
January 2022 – December 2023 | December 2023
unknown | Army(HCI), Army(Northeastern)

MTS4.Joseph Schwalb
Topic: Autonomous Systems Virtual Environment
Computer Science – Primary Advisor Vineetha Menon
May 2021 – December 2023 | December 2023
Part-time PhD Student | Army(HCI), Army(Northeastern)

MTS3.Hannah Smitherman (Barr)
Topic: Gamification of Autonomous Systems Acceptance
Psychology – Primary Advisor Nathan Tenhundfeld
May 2021 – May 2023 | May 2023
unknown | NPS(Phase 2), Army(Northeastern)

MTS2.Taylor Yeazitzis
Topic: Affordability in Industry
Psychology Program – Primary Advisor Kristin Weger
May 2021 – May 2023 | May 2023
Graduate Research Assistant - PhD | SERCenter(IME), NASA(Affordability)

MTS1.Lisa Matsuyama
Topic: Autonomous Systems Adoption
Psychology Program – Primary Advisor Kristin Weger
January 2020 – May 2021 | December 2021
unknown | *NPS(Phase 1)*

Actively Researching – Thesis Track – Research Supported

MS Students Cont'd

MAS3.Gabriel Henneberger
Topic: Drone Competition
Aerospace Systems Program – Primary Advisor Howard Chen
January 2024 – present | Expected May 2027
NATO Drone Team Member | NATO

MAS2.Jackson Neese
Topic: Helmet Orientation
Mechanical Engineering Program – Primary Advisor Howard Chen
January 2024 – present | Expected December 2025
Graduate Research Assistant | Army(LWI), NATO

MAS1.Dylan Wright
Topic: Autonomous Systems Virtual Environment
Computer Science – Primary Advisor Vineetha Menon
August 2023 – present | Expected December 2025
Graduate Research Assistant | Army(Northeastern)

Completed Research Project – Research Supported

MCS12.Aubrey Northam
Topic: Autonomous C2 Systems
Engineering Management Program – Primary Advisor Howard Chen
January 2025 – May 2025 | Expected December 2025
Graduate Research Assistant | Army(C2), Army(LWI)

MCS11.Luke Symasek
Topic: LWI AI
Computer Science Program – Primary Advisor Vineetha Menon
January 2025 – May 2025 | May 2025
Graduate Research Assistant | Army(LWI)

MCS10.Lindsey Davis
Topic: User Interface Assessment for C2 Systems
Psychology Program – Primary Advisor Kristin Weger
May 2025 – August 2025 | Expected May 2027
Graduate Research Assistant | Army(C2)

MCS9.Rachel Powell
Topic: Autonomous C2 Systems
Psychology Program – Primary Advisor Kristin Weger
August 2024 – May 2025 | Expected May 2026
Graduate Research Assistant | Army(C2)

MCS8.Maria Voss
Topic: Drone Competition
Electrical and Computer Engineering Program – Primary Advisor Howard Chen
January 2024 – August 2024 | August 2024
NATO Drone Team Member | NATO

MS Students Cont'd

MCS7.Jenna Cotter
Topic: Reliability in AI Systems
Psychology – Primary Advisor Nathan Tenhundfeld
May 2022 – May 2023 | December 2023
unknown | Army(Northeastern)

MCS6.Sheri Leder
Topic: Team Culture
Psychology Program – Primary Advisor Kristin Weger
January 2021 – May 2023 | unknown
unknown | NASA(*SERC*), Army(HCI), NPS(Phase 3), NPS(Phase 4)

MCS5.Barbara Caioli
Topic: Training of Architecture Processes
Psychology Program – Primary Advisor Kristin Weger
June 2021 – May 2022 | Left UAH program
unknown | SERCenter(IME)

MCS4.Daniel Philip Pham
Topic: Explainable AI in Autonomous Systems
Computer Science – Primary Advisor Vineetha Menon
January 2022 – December 2022 | December 2022
unknown | Army(HCI), Army(Northeastern)

MCS3.Richard Simmang
Topic: MBSE Implementation in CAS
Aerospace Engineering – Primary Advisor Dale Thomas
September 2020 – May 2021 | Expected May 2022
unknown | SERCenter(IME)

MCS2.Cassandra Martin
Topic: The Culture of Affordability at NASA
Psychology Program – Primary Advisor Kristin Weger
August 2019 – May 2020 | Expected December 2020
unknown | NASA(*Affordability*)

MCS1.Jonathan Sullivan
Topic: The Culture of Affordability at NASA
Psychology Program – Primary Advisor Kristin Weger
May 2019 – August 2019 | Expected December 2020
unknown | NASA(*Affordability*)

BS STUDENTS - FUNDED

Research Advised: 37

Active: 2
Projects Completed: 35

Research Supported: 18

Active: 1
Projects Completed: 17

Actively Researching – Primary Advisor

BA2. Madison Drake
Topic: Architectural Decision Space Exploration
Aerospace Engineering
September 2025 - present — Expected May 2027
Undergraduate Research Assistant — Army(Arch)

BA1. August Longhurst
Topic: Project Factors
Aerospace Engineering
January 2023 - present — Expected May 2026
Undergraduate Research Assistant — NASA(SERC), Army(LWI)

Research Completed – Primary Advisor

BC35. Meredith Bates
Topic: Systems Architecting Process
Industrial and Systems Engineering
May 2022 – May 2024 — Expected May 2026
Undergraduate Research Assistant — SERCenter(IME)

BC34. Kelly Campo
Topic: Value of Model-Based Systems Engineering
Industrial and Systems Engineering
January 2021 - May 2024 — May 2024
Undergraduate Research Assistant — NASA(SERC)

BC33. Thomas Teper
Topic: Value of Model-Based Systems Engineering
Aerospace Engineering
April 2021 - May 2024 — May 2024
Undergraduate Research Assistant — NASA(SERC)

BC32. Sarah Andrews
Topic: Systems Architecting Process
Aerospace Engineering
January 2023 – August 2023 — Expected May 2026
Undergraduate Research Assistant — SERCenter(IME)

BC31. Kiryu Sakamoto
Topic: MOSA Measures
Mechanical Engineering
January 2023 – May 2023 — May 2024
Undergraduate Research Assistant — SERCenter(Mod)

BS Students – Funded Cont'd

BC30. Catherine Colella
Topic: Technical Metrics
Aerospace Engineering
January 2023 – May 2023 | May 2024
Undergraduate Research Assistant | NASA(SERC)

BC29. Matthew Smith
Topic: MOSA Measures
Aerospace Engineering
January 2023 – May 2023 | Expected May 2026
Undergraduate Research Assistant | SERCenter(Mod)

BC28. Skyler Kerr
Topic: Modernization of Systems Engineering
Mechanical Engineering
January 2022 – May 2023 | May 2024
Undergraduate Research Assistant | NASA(MOD), SERCenter(Mod)

BC27. Grace Liverett
Topic: Project Factors
Mechanical Engineering
May 2022 – May 2023 | May 2023
Undergraduate Research Assistant | NASA(SERC)

BC26. Ozioma Oriala
Topic: Systems Architecting Process
Psychology
May 2022 – August 2022 | unknown
Undergraduate Research Assistant | SERCenter(IME)

BC25. John Powers
Topic: Systems Architecting Process
English
May 2021 – May 2022 | May 2022
Undergraduate Research Assistant | SERCenter(IME)

BC24. Anderson Duggan
Topic: Decision Making in Architecting
Industrial and Systems Engineering
May 2022 – August 2022 | unknown
Undergraduate Research Assistant | SERCenter(IME)

BC23. Garrison Ecker
Topic: Deferred Decision Making in Architecting
Industrial and Systems Engineering
May 2021 – August 2022 | May 2023
Undergraduate Research Assistant | SERCenter(IME)

BS Students – Funded Cont'd

BC22. Madison Oakman
Topic: Heuristics in Architecting
Civil Engineering
May 2021 – September 2021 | May 2022
Undergraduate Research Assistant | SERCenter(IME)

BC21. Deivi Bucio
Topic: Objective Functions in Architecting
Industrial and Systems Engineering
April 2021 – December 2021 | December 2021
Undergraduate Research Assistant | SERCenter(IME)

BC20. Shivani Patel
Topic: Factors Leading to Project Failures
Aerospace Engineering
February 2021 – December 2021 | May 2022
Undergraduate Research Assistant | NASA(SERC)

BC19. Robert McGukin
Topic: Factors Leading to Project Failures
Industrial and Systems Engineering
September 2020 – May 2021 | August 2021
Undergraduate Research Assistant | NASA(SERC)

BC18. Andrew Thelen
Topic: Incentives to Drive Decisions in System Architectures
Mechanical Engineering; Industrial and Systems Engineering
April 2020 – May 2021 | May 2022
Undergraduate Research Assistant | SERCenter(IME)

BC17. Lauren Gearhardt
Topic: Factors Leading to Project Failures
Industrial and Systems Engineering; Astronomy and Astrophysics
January 2021 – May 2021 | May 2022
Undergraduate Research Assistant | NASA(SERC)

BC16. Olivia Jones
Topic: Heuristics in Systems Architecting
Aerospace Engineering
March 2020 – May 2021 | May 2021
Undergraduate Research Assistant | SERCenter(IME)

BC15. Jeni Petrillo
Topic: Computer Science Applications in Systems Engineering
Computer Science; Mathematical Science
March 2020 – June 2021 | May 2023
Undergraduate Research Assistant | SERCenter(*IME*), SERCenter*(WRT)*

BS Students – Funded Cont'd

BC14. Taylor Willingham
Topic: Value of Model-Based Systems Engineering
Industrial and Systems Engineering
October 2020 – May 2021 — May 2022
Undergraduate Research Assistant — NASA(SERC)

BC13. TaDerrius Alexander
Topic: Degraded Visualization in Rotorcraft
Industrial and Systems Engineering
May 2019 – May 2020 — May 2020
Army — funded through SMAP center

BC12. Christina Lachapelle
Topic: Product Family Methods in Architectural Decisions
Mechanical Engineering
April 2020 – March 2021 — May 2022
Wolverine Industries — SERCenter(*IME*)

BC11. Katherine Tillery
Topic: Architectural Decision Making
Industrial and Systems Engineering
April 2020 – December 2020 — May 2021
Dynetics — SERCenter(*IME*)

BC10. Jessica Hill
Topic: Value of Model-Based Systems Engineering
Industrial and Systems Engineering
May 2020 – December 2020 — May 2021
Dynetics — NASA (SERC)

BC9. Anna Shipman
Topic: Value of Model-Based Systems Engineering
Industrial and Systems Engineering
January 2020 – December 2020 — May 2021
NASA — NASA(*SERC*)

BC8. Raphael Thorp
Topic: Value of Model-Based Systems Engineering
Industrial and Systems Engineering
October 2020 – March 2021
June 2021 – October 2021 — May 2022
Plasma Processes — NASA(*SERC*), SERCenter(*IME*)

BC7. Amanda Banks
Topic: Templates in the Arts and Systems Engineering
Industrial and Systems Engineering
September 2018 – December 2020 — December 2020
UAH Research Scientist — NASA (*SERC*), NSF (*Matrix*), NASA (*Affordability*)

BS Students – Funded Cont'd

BC6. Ashleigh Lynch
Topic: Improvisation to Elicit Stakeholder Preferences
Industrial and Systems Engineering
May 2019 – August 2019 | May 2020
U.S. Army CCDC AvMC | NASA(*SERC*), UAH(*Theatre*)

BC5. Casey Eaton
Topic: The Relationship between Goal Function Trees and Value Models
Industrial and Systems Engineering
August 2018 – May 2019 | May 2019
UAH Graduate Research Assistant | NASA(*SERC*)

BC4. Derek Millard
Topic: Development of a Rotorcraft Simulator
Industrial and Systems Engineering
May 2017 – August 2017 | May 2019
SMAP Engineer | UAH (*SERF*)

BC3. Freija Weitzel
Topic: Development of a Video Recording Studio
Industrial and Systems Engineering
May 2017 – August 2017 | May 2019
unknown | UAH (*SERF*)

BC2. Michael Threatt
Topic: Neural Networks for Human Behavior Prediction
Computer Engineering
May 2016 - August 2016 | May 2017
Northwestern University Graduate Student | Carleton

BC1. Trevor Patterson
Topic: Neural Networks for Human Behavior Prediction
Computer Science
May 2016 - May 2017 | December 2017
unknown | Carleton, Start-up

Actively Researching – Research Supported

BAS1. James Roberson
Topic: Drone Competition
Computer Science – Primary Advisor Howard Chen
March 2024 – present | Expected May 2027
NATO Drone Team Member | NATO

Research Completed – Research Supported

BS Students – Funded Cont'd

BCS17. Noah Gregory
Topic: Artistic Improvements in Virtual Environments
Art – Primary Advisor Kristin Weger
May 2025 – August 2025 | Expected December 2025
Undergraduate Research Assistant | Army(C2)

BCS16. Bryce Ziyenge
Topic: Artistic Improvements in Virtual Environments
Art – Primary Advisor Kristin Weger
May 2024 – August 2025 | Expected May 2026
Undergraduate Research Assistant | Army(Northeastern), Army(C2)

BCS15. Hyatt Kamel
Topic: LWI AI
Computer Science – Primary Advisor Vineetha Menon
January 2025 – August 2025 | Expected May 2026
Undergraduate Research Assistant | Army(LWI)

BCS14. Phillip Rivers
Topic: Artistic Improvements in Virtual Environments
Art – Primary Advisor Kristin Weger
May 2024 – May 2025 | May 2025
Undergraduate Research Assistant | Army(Northeastern)

BCS13. Brandon Rostenbach
Topic: Drone Competition
Electrical and Computer Engineering – Primary Advisor Howard Chen
January 2024 – August 2024 | August 2024
NATO Drone Team Member | NATO

BCS12. Tomas Jimenez Nicolas
Topic: Artistic Improvements in Virtual Environments
Art – Primary Advisor Kristin Weger
May 2024 – May 2025 | May 2025
Undergraduate Research Assistant | Army(Northeastern)

BCS11. Yeraldy Bermudez
Topic: Autonomous Systems Industrial Engineering
Industrial Engineering – Primary Advisor Sampson Gholston
August 2023 – December 2023 | May 2024
Undergraduate Research Assistant | Army(Northeastern)

BCS10. Luke Symasek
Topic: Reliability in AI Systems
Psychology – Primary Advisor Kristin Weger
August 2023 – August 2024 | August 2024
Undergraduate Research Assistant | Army(Northeastern)

BS Students – Funded Cont'd

BCS9. Rileigh Zimmerman
Topic: Autonomous Systems Adoption
Industrial Engineering – Primary Advisor Kristin Weger
August 2020 – May 2023 | May 2023
Undergraduate Research Assistant | NPS(Phase 1), NPS(Phase 3)

BCS8. Mingeon Sung
Topic: Autonomous Systems Virtual Environment
Computer Science – Primary Advisor Vineetha Menon
May 2021 – May 2023 | May 2023
Undergraduate Research Assistant | Army(HCI), Army(Northeastern)

BCS7. Emily O'hear
Topic: Human Interactions with Autonomous Systems
Psychology – Primary Advisor Nathan Tenhundfeld
February 2021 – May 2022 | May 2022
Undergraduate Research Assistant | Army(HCI)

BCS6. Joseph Andrew Atchley
Topic: Human Interactions with Autonomous Systems
Psychology – Primary Advisor Nathan Tenhundfeld
August 2020 – December 2021 | December 2021
Undergraduate Research Assistant | Army(HCI)

BCS5. Trystan May
Topic: Computer Software for Autonomous Systems Simulations
Computer Science – Primary Advisor Vineetha Menon
January 2021 – May 2021 | Expected May 2021
Undergraduate Research Assistant | Army(HCI)

BCS4. Hannah Smitherman (Barr)
Topic: Human Interactions with Autonomous Systems
Psychology; Digital Animation – Primary Advisor Nathan Tenhundfeld
September 2020 –May 2021 | May 2021
Undergraduate Research Assistant | Army(HCI), NPS(Phase 2)

BCS3. Rebecca Westbrook
Topic: Improvisation to Elicit Stakeholder Preferences
Theatre – Primary Advisor Amy Guerin
May 2020 – May 2021 | May 2021
Undergraduate Research Assistant | NASA(SERC)

BCS2. Kayla Christiansen
Topic: Affordability in Engineering
Psychology – Primary Advisor Kristin Weger
May 2020 – Aug 2020 | Expected May 2021
Student | NASA(*Affordability*)

BS Students – Funded Cont'd

BCS1. Hailey Simon
Topic: Autonomous Systems Adoption
Industrial and Systems Engineering – Primary Advisor Kristin Weger
January 2020 – May 2020 | May 2021
U.S. DoD | NPS(*Phase 1)*

UAH UNDERGRADUATE HONORS CAPSTONE STUDENTS

Theses Completed: 4

Kelly Campo
Model-Based Systems Engineering: Evaluating Perceived Value, Metrics, and Evidence Through Literature
Industrial and Systems Engineering
August 2023 – May 2024 | May 2024
UAH Graduate Research Assistant | NASA (SERC)

Rosemary Cortelli
Spaceport Human Factors: Integrating Psychological and Systems Engineering Principles in Spaceport Concepts
Industrial and Systems Engineering
August 2020 – May 2021 | May 2021
Dynetics Systems Engineer | Self funded

Cameron McWilliams
Spatial-temporal Deterioration of U.S. Bridges in Alabama and Ohio
Industrial and Systems Engineering
August 2019 – May 2020 | May 2020
unknown | Self funded

Casey Eaton
The Relationship Between Goal-Function Trees and Value Models
Industrial and Systems Engineering
August 2018 – May 2019 | May 2019
UAH Graduate Research Assistant | NASA (SERC)

PhD COMMITTEE MEMBER

Completed: 9
In Progress: 8

Completed

Greg Bacon
Toward Measurable Explainable Ethical AI: An LLM-Driven Data Analytics Study
Advisor: Vineetha Menon
Computer Science | August 2025

T. Warren de Wit
Context-Aware Machine Learning for Low-Burden Brain-Computer Interfaces
Advisor: Vineetha Menon
Computer Science | August 2024

PhD COMMITTEE MEMBER Cont'd

Daniel Colvett
Modeling and Simulation of Cyberattacks to Aid Systems Security Engineers and Cyber-Physical Designs to Aid Systems Engineers
Advisor: Mikel Petty
Systems Engineering — May 2023

Jason Kolligs
The Case for Alternative Media Requirement Expressions in Systems Engineering
Advisor: L. Dale Thomas
Systems Engineering — December 2022

Kevin Foster
Improving Military Robot Swarm Tactics Using Construction Combat Simulation
Advisor: Mikel Petty
Modeling and Simulation — August 2021

Angelinda Rush
Aggregation of Stakeholder Preferences to Ensure Rational Engineering Decisions
Advisor: Paul Collopy
Systems Engineering — August 2021

Robert Braunger
Technical Reviews in Complex Development Programs
Advisor: Paul Collopy
Systems Engineering — August 2019

William Garrison
Stochastic Simulation Optimization by Filtering Static Surrogate Models
Advisor: Mikel Petty
Modeling and Simulation — May 2019

John M. Nicholson
A Theoretical Evaluation of Engineering Conceptual Design Methodologies
Advisor: Paul Collopy
Systems Engineering — May 2019

In Progress

Alexander Aueron – Systems Engineering
Justin Brown – Engineering Management
Daniel Gossman – Systems Engineering
Noah Jack Fitzpatrick – Systems Engineering
Derek Koehl – Computer Science
Charles Jeffrey Maranich – Systems Engineering
Taylor Yeazitzis – Psychology
Virginia Sullivan – Psychology

MS COMMITTEE MEMBER

Completed: 11
In Progress: 0

Completed

Hailey Hicks
Sensor Fusion for Enhancing Motion Capture: Integrating Optical and Inertial Motion Capture Systems
Industrial Engineering — May 2025

Joshua Mote
Aviation Weather Forecasting Utilizing an Artificial Neural Network
Operations Research — May 2025

Joseph Schwalb
A Study Of Explainable Real-Time Object Detection and Human-AI Teaming Interactions in Virtual Environments
Computer Science — December 2023

Joseph Andrew Atchley
The Effectiveness of System-Wide Trust Repair Strategies
Psychology — December 2023

Taylor Yeazitzis
Affordability Culture in Organizations
Psychology — May 2023

Hannah Barr
Differences in Effectiveness of Intrinsic and Extrinsic Motivation Based Incentives in Promoting Use, Acceptance, and Adoption of Automated Systems
Psychology — May 2023

Griffin Smith
Exergy Analysis of Nuclear Power Devices for Lunar Power Applications
Mechanical and Aerospace Engineering — May 2023

Phillip Dyer
Exergy Analysis of Photovoltaics Coupled with Electrochemical Energy Storage for Lunar Power Applications
Mechanical and Aerospace Engineering — December 2022

Lisa Matsuyama
How Workplace Climate Affects Group Culture, Leadership Style, and Perceived Organizational Performance in Design Teams
Psychology — December 2021

Hunter Dunne
Marsbee Preliminary Design Analysis Tool
Mechanical and Aerospace Engineering — August 2020

Raymond Chow
Exergy Analysis of the Environmental Control and Life Support System
Mechanical and Aerospace Engineering — December 2018

MS COMMITTEE MEMBER Cont'd

In Progress

Dylan Wright – Computer Science

ISU UNDERGRAD 1st YEAR HONORS MENTOR

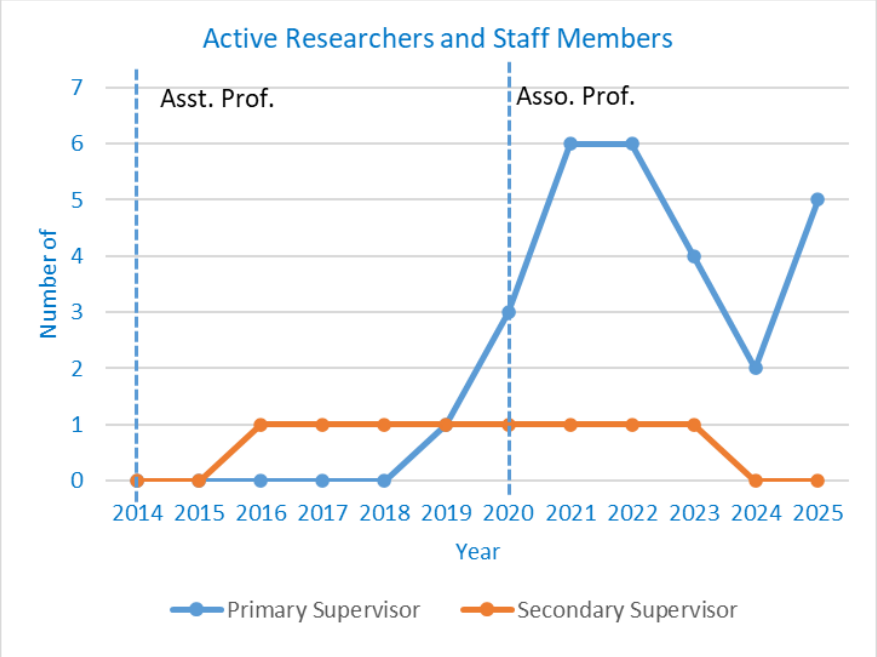
Christian White (Co-Mentor)
David Schanot (Co-Mentor)

RESEARCHERS AND STAFF

Totals

Primary Supervisor
Active: 1
Completed: 10

Secondary Supervisor
Active: 0
Completed: 2



Active – Primary Supervisor

SA1. Cynthia Robinson
ISEEM - Management
Senior Staff Assistant
August 2025 – Present — ISEEM

Completed Assignment – Primary Supervisor

SC10. Phillip Rivers
Topic: Artistic Improvements in Virtual Environments
Researcher
May 2025 – September 2025 — Army(C2)

SC9. Daniel Shapiro
Validation Frameworks for Autonomous Systems - Technical
Principle Research Scientist VIII (Step 4)
Feb 2021 – August 2022 — SERCenter(WRT), Army(HCI)
May 2024 – September 2025 — Army (C2)

SC8. Thomas Davis
HIS in Autonomous Systems
Researcher
Aug 2024 – September 2025 — Army(C2)

RESEARCHERS AND STAFF Cont'd

SC7. Casey Eaton
Topic: C2 Decision Making Assessment
Researcher
May 2025 – August 2025 | Army (C2)

SC6. Barbara Caioli
Topic: Training of Architecture Processes
Research Associate III
June 2022 – May 2023 | SERCenter(IME), SERCenter(Mod)

SC5. Melissa Christine Lewis
ALDOT Business Support - Support
Business Counselor
Aug 2019 – May 2022 | ALDOT(OJT), ALDOT(MPP19)

SC4. Allison Moore
Comprehensive Architecture Strategy - Management
Program Manager
March 2020 – February 2023 | SERCenter(IME)

SC3. Joseph Clerkin
Comprehensive Architecture Strategy – Technical/Management
Research Engineer III
July 2021 – February 2023 | SERCenter(IME)

SC2. Robert Lewis
Comprehensive Architecture Strategy - Technical
Research Associate V
March 2020 – January 2023 | SERCenter(IME)

SC1. Amanda Banks
Comprehensive Architecture Strategy - Management
Research Associate IV
March 2021 – July 2021 | SERCenter(IME)

Active – Secondary Supervisor

Completed Assignment – Secondary Supervisor

SCS2. Nadia Wright
Topic: AI in Systems
Research Associate III
March 2023 – June 2023 | Army(Northeastern)

RESEARCHERS AND STAFF Cont'd

SCS1. Ronica Ondocsin
ALDOT Business Support - Management
Research Engineer I
September 2016 – December 2022
ALDOT(*OJT*), ALDOT(*MPP19*), ALDOT(MPP17), ALDOT(BDP)

TEACHING

Courses Taught (Each iteration)

Total:	47
2012:	0
2013:	3
2014:	2

Assistant Professor

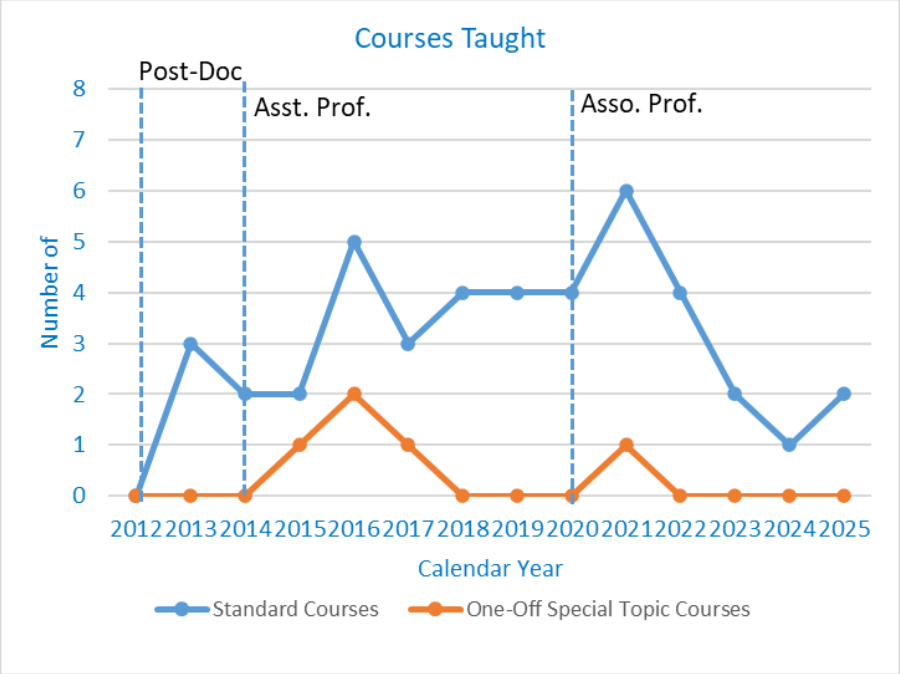
2015:	3
2016:	7
2017:	4
2018:	4
2019:	4
2020 (Spring):	2

Associate Professor

2020 (Fall):	2
2021:	7
2022:	4
2023:	2
2024:	1
2025:	2

Different Courses Taught

UAH:	13
ISU:	4



Note: Sabbatical taken Fall 2023 and Spring 2024

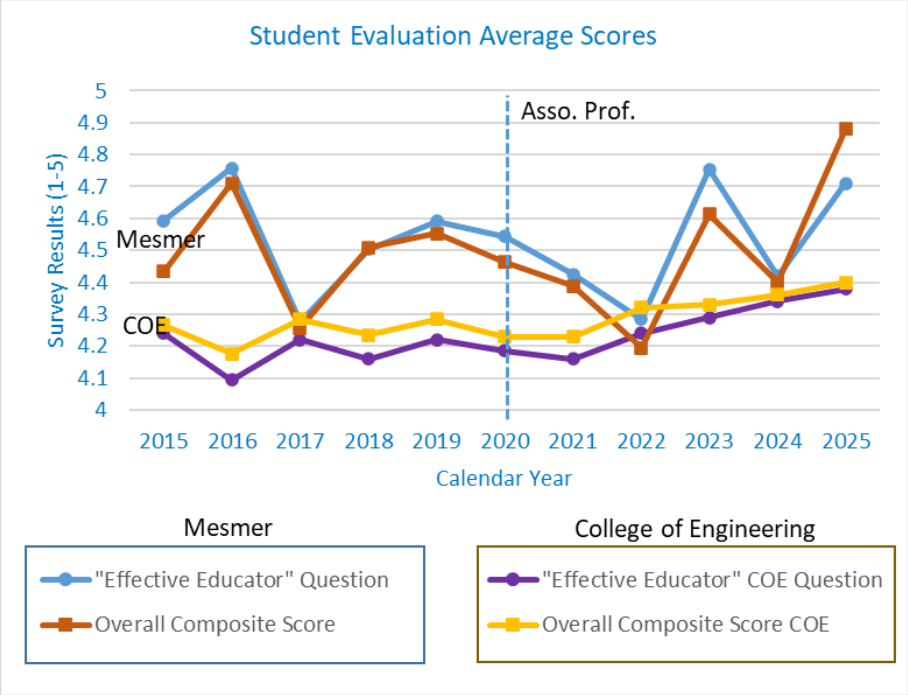
Survey Score Difference from COE Average
Scale 1-5
Difference= Mesmer-COE

"Effective Educator" Question

2015:	+0.35
2016:	+0.66
2017:	+0.05
2018:	+0.34
2019:	+0.37
2020:	+0.36
2021:	+0.27
2022:	+0.04
2023:	+0.46
2024:	+0.08
2025:	+0.33

Overall Composite Score

2015:	+0.17
2016:	+0.53
2017:	-0.03
2018:	+0.27
2019:	+0.27
2020:	+0.23
2021:	+0.16
2022:	-0.12
2023:	+0.28
2024:	+0.04
2025:	+0.48



Note: Scores above are averaged across multiple courses, weighted according to the number of survey participants. COE scores from spring and fall of calendar year are weighted equally.
Note: A scale of 1 to 4 was used period to Fall 2016. Scores were normalized from a 1 to 4 scale to a 1 to 5 scale to enable trend analysis.
Note: Prior to 2015 only included ISU courses which had limited data and no COE comparison

COURSES TAUGHT

The University of Alabama in Huntsville

Note: Evaluation Notation- ([score]/[max score]) n=number of responses, College of Engineering(Average of Instructors Score/max score)

Note: 1st Evaluation Item was question: "The instructor has been an effective engineering educator: Strongly Disagree (1) – Strongly Agree (5)"

Note: 2nd Evaluation Item is overall score all survey questions with 5 being best and 1 being worst

Note: A scale of 1 to 4 was used period to Fall 2016

Note: No overall scores were reported prior to Fall 2015

ISE 224

Introduction to Industrial and Systems Engineering

Fa. 2024 — (**4.42/5**)n=46, COE(4.34/5); AVG:(4.4/5)n=46, COE(4.36/5)
50 students

Fa. 2025 — in progress

Casey, D.M., Casey, S., Set Phasers on Stun: And Other True Tales of Design, Technology, and Human Error, Aegean

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ISE 340

Operations Research

Fa. 2017 — (**4.31/5**)n=39, COE(4.22/5); AVG:(4.26/5)n=41, COE(4.28/5)
46 students

Fa. 2018 — (**4.19/5**)n=36, COE(4.15/5); AVG:(4.32/5)n=36, COE(4.23/5)
39 students

Sp. 2019 — Not enough responses
2 students

Fa. 2019 — (**4.54/5**)n=48, COE(4.23/5); AVG:(4.52/5)n=48, COE(4.31/5)
51 students

Fa. 2020 — (**4.39/5**)n=46, COE(4.19/5); AVG:(4.36/5)n=46 COE(4.22/5)
47 students

Sp. 2021 — not enough responses
1 student

Taha, H., Operations Research: An Introduction, Pearson

COURSES TAUGHT Cont'd

ISE 428

Systems Analysis & Design I

Fa. 2018 (**4.67/5**)n=3, COE(4.15/5); AVG:(4.03/5)n=3, COE(4.23/5)
5 students

Fa. 2020 not enough responses
4 students

Fa. 2021 not enough responses
2 students

Fa. 2022 not enough responses
6 students

No Text (Senior Design Project)

Note: In Fall 2018 the project concerned the application of modern systems engineering methods on NASA's Mars Lander Program, working with the NASA Systems Engineering Research Consortium

Note: In Fall 2020 the INCLUDE project involved an interdisciplinary team of students including ISEEM, Psychology, Philosophy, and Art. The project holistically investigated the space ecosystem for the next 3 decades, with a focus on spaceports, mining, and habitats.

Note: In Fall 2021 and Fall 2022 the INCLUDE project involved an interdisciplinary team of students including ISEEM, Psychology, and Computer Science. The project investigates challenges associated with conceptualizing an autonomous system playing a capture the flag game.

ISE 429

Systems Analysis & Design II

Sp. 2019 (**4.80/5**)n=5, COE(4.21/5); AVG:(4.88/5)n=5, COE(4.26/5)
5 students

Sp. 2021 not enough responses
4 students

Sp. 2022 not enough responses
1 student

Sp. 2023 not enough responses
6 students

No Text (Senior Design Project)

Note: In Spring 2019 the project concerned the application of modern systems engineering methods on NASA's Mars Lander Program, working with the NASA Systems Engineering Research Consortium

Note: In Spring 2021 the INCLUDE project involved an interdisciplinary team of students including ISEEM, Psychology, Philosophy, and Art. The project holistically investigated the space ecosystem for the next 3 decades, with a focus on spaceports, mining, and habitats.

Note: In Spring 2022 and 2023 the INCLUDE project involved an interdisciplinary team of students including ISEEM, Psychology, Art, and Computer Science. The project investigates challenges associated with designing and prototyping an autonomous system playing a capture the flag game.

Courses Taught Cont'd

ISE 623-01, ISE 623-91 (online), ISE 623-92 (distant online)

Engineering Economics Analysis

Sp. 2015 623-01: (**4/4**)n=4, COE(3.43/4)
623-91: (**3.57/4**)n=7, COE(3.43/4)
623-92: Not enough responses
-01: 6 students; -91: 15 students; -92: 1 student

Sp. 2016 623-01: (**3.88/4**)n=8, COE(3.30/4); AVG:(3.83/4)n=8, COE(3.35/4)
623-91: (**3.75/4**)n=8, COE(3.30/4); AVG:(3.68/4)n=8, COE(3.35/4)
623-92: (**4/4**)n=1, COE(3.30/4); AVG:(4/4)n=1, COE(3.35/4)
-01: 10 students; -91: 23 students; -92: 2 students

Sp. 2017 623-01: Not enough responses
623-91: (**4.4/5**)n=5, COE(4.22/5); AVG:(4.35/5)n=5, COE(4.29/5)
-01: 10 students; 623-91: 19 students

Sp. 2018 623-01: (**4.77/5**)n=22, COE(4.17/5); AVG:(4.75/5)n=22, COE(4.24/5)
623-91: (**4.67/5**)n=3, COE(4.17/5); AVG:(4.42/5)n=3, COE(4.24/5)
-01: 24 students; -91: 3 students

Sp. 2020 623-01: (**4.75/5**)n=29, COE(4.18/5); AVG:(4.61/5)n=29, COE(4.24/5)
29 students

Sp. 2021 623-01: (**4.54/5**)n=43, COE(4.16/5); AVG:(4.50/5)n=43, COE(4.20/5)
43 students

Sp. 2022 623-01: (**4.07/5**)n=44, COE(4.24/5); AVG:(4.09/5)n=44, COE(4.32/5)
51 students

Eschenback, T., Engineering Economy: Applying Theory to Practice, Oxford University Press

Binmore, K., Playing for Real: A Text on Game Theory, Oxford University Press

ISE 626-01, ISE 626-91 (online)

Introduction to Operations Research

Fa. 2015 626-01: (**4/4**)n=5, COE(3.43/4); AVG:(3.75/4)n=5, COE(3.45/4)
626-91: (**3.2/4**)n=5, COE(3.43/4); AVG:(3.23/4)n=5, COE(3.45/4)
626-01: 10 students; 626-91: 11 students

Fa. 2016 626-01: (**4.86/5**)n=7, COE(4.12/5); AVG:(4.74/5)n=7, COE(4.22/5)
626-91: (**4.50/5**)n=4, COE(4.12/5); AVG:(4.58/5)n=4, COE(4.22/5)
626-01: 9 students; 626-91: 11 students

Fa. 2021 626-01: (**4.3/5**)n=30, COE(4.22/5); AVG:(4.25/5)n=30, COE(4.26/5)
626-01: 30 students

Hillier, F., Introduction to Operations Research, McGraw-Hill Science/Engineering/Math

ISE 639-03

Special Topics: Hard Surface Modeling in Systems Engineering

Sp. 2021 Not enough responses
1 student

No Text – Journal Articles used

COURSES TAUGHT Cont'd

ISE 639-03
Special Topics: End-User Modeling
Sp. 2016 Not enough responses
1 student
No Text – Journal Articles used

ISE 639-02
Special Topics: Programming of Optimization Algorithms
Sp. 2016 (**4/4**)n=1, COE(3.30/4); AVG:(4/4)n=1, COE(3.35/4)
1 student
No Text – Journal Articles used

Courses Taught Cont'd

ISE 726-01, ISE 726-91 (online), ISE 726-92 (distant online)
Systems Modeling

Sp. 2016 726-01: (**4/4**)n=1, COE(3.30/4); AVG:(4/4)n=1, COE(3.35/4)
726-91: (**3.67/4**)n=3, COE(3.30/4); AVG:(3.72/4)n=3, COE(3.35/4)
726-92: (**4/4**)n=1, COE(3.30/4); AVG:(4/4)n=1, COE(3.35/4)
-01: 5 students; -91: 9 students; -92: 1 student

Fa. 2016 726-01: Not enough responses
-01: 1 student

Sp. 2017 726-01: (**3.8/5**)n=5, COE(4.22/5); AVG:(3.97/5)n=5, COE(4.29/5)
726-91: (**4.4/5**)n=3, COE(4.22/5); AVG:(4.53/5)n=3, COE(4.29/5)
-01: 8 students; -91: 10 students

Sp. 2018 726-01: (**4.91/5**)n=11, COE(4.17/5); AVG:(4.80/5)n=11, COE(4.24/5)
11 students

Sp. 2019 726-01: (**4.83/5**)n=6, COE(4.21/5); AVG:(4.54/5)n=6, COE(4.26/5)
6 students

Sp. 2020 726-01: (**4.64/5**)n=11, COE(4.18/5); AVG:(4.51/5)n=11, COE(4.24/5)
11 students

Sp. 2021 726-01: (**4.33/5**)n=12, COE(4.16/5); AVG:(4.33/5)n=12, COE(4.20/5)
13 students

Sp. 2022 726-01: (**4.58/5**)n=32, COE(4.24/5); AVG:(4.34/5)n=32, COE(4.32/5)
33 students

Sp. 2023 726-01: (**5/5**)n=4, COE(4.29/5); AVG:(4.94/5)n=4, COE(4.33/5)
726-02: (**4.63/5**)n=8, COE(4.29/5); AVG:(4.45/5)n=8, COE(4.33/5)
-01: 4 students; -02: 9 students

Hazelrigg, G., Fundamentals of Decision Making for Engineers: For Engineering Design and Systems Engineering, Pearson Education

ISE 739-01, ISE 739-91 (online)
Special Topics: Optimization in Aerospace Systems Design

Fa. 2015 739-01: (**4/4**)n=1, COE(3.43/4); AVG:(4/4)n=1, COE(3.45/4)
739-91: (**4/4**)n=1, COE(3.43/4); AVG:(4/4)n=1, COE(3.45/4)
739-01: 3 students; 739-91: 2 students

Fa. 2016 739-01: Not enough responses
739-91: Not enough responses
739-01: 3 students; 739-91: 5 students

Hillier, F., Introduction to Operations Research, McGraw-Hill Science/Engineering/Math

ISE 739-03
Special Topics: Advanced Game Theory

Fa. 2017 Not enough responses
4 students

No Text – Journal Articles used

Courses Taught Cont'd

ISE 761-01, ISE 761-02 (hybrid), EM 761-01, EM 761-02 (hybrid)
Evolving Theory of Engineering Management/Industrial and Systems Engineering
Sp. 2025 ISE -01: Not enough responses
ISE -02: Not enough responses
EM -01: (**4.71/5**)n=7, COE(4.38/5); AVG:(4.88/5)n=7, COE(4.40/5)
EM -02: Not enough responses
ISE-01: 4 students; ISE-02: 1 student;
EM-01: 10 students; EM-02: 1 student

Booth, W., Colomb, G., Williams, J., Bizup, J., FitzGerald, W., The Craft of Research, 5th Edition
Thiel, D., Research Methods for Engineers

Iowa State University
*Note: Evaluation Notation- (**[score]/[max score]**) n=number of responses*
Note: Evaluation Item was question: "The overall teaching effectiveness of the instructor was: Poor (1) – Excellent (5)"
Note: No overall score or department/college score was given

AerE 261
Introduction to Performance and Design
Sp. 2014 Not Received

Anderson, J., Aircraft Performance and Design, McGraw-Hill

AerE 463X/563X – Co-Instructed
Introduction to Multidisciplinary Design Optimization
Sp. 2013 463X: 463X(**4.67/5**)n=3
563X: 563X(**4.57/5**)n=7
Sp. 2014 Not Received

Hazelrigg, G., Fundamentals of Decision Making for Engineers: For Engineering Design and Systems Engineering, Pearson Education
Vanderplaats, G., Numerical Optimization Techniques for Engineering Design: With Applications, McGraw-Hill Book Company
Reklaitis, G., Ravindran, A., Ragsdell, K., Enginering Optimization: Methods and Applications, John Wiley and Sons

AerE 468X/IE 468X – Co-Instructed
Large-Scale Complex Engineered Systems
Fa. 2013 (**4.25/5**)n=8

Hazelrigg, G., Fundamentals of Decision Making for Engineers: For Engineering Design and Systems Engineering, Pearson Education
Binmore, K., Playing for Real: A Text on Game Theory, Oxford University Press

Courses Taught Cont'd

AerE 568X/IE 568X – Co-Instructed
Large-Scale Complex Engineered Systems
Fa. 2013 (**5/5**)n=7

Hazelrigg, G., Fundamentals of Decision Making for Engineers: For Engineering Design and Systems Engineering, Pearson Education

Binmore, K., Playing for Real: A Text on Game Theory, Oxford University Press

AWARDS

12 Awards/Honors

2025 UAH COE Outstanding Faculty Research Award
Bryan Mesmer
UAH- College of Engineering — Spring 2025

2024 University Distinguished Research, Creative Achievement, & Scholarly Performance Award
Bryan Mesmer
The University of Alabama in Huntsville — Spring 2024

2022 AIAA Systems Engineering Best Paper
Hanumanthrao Kannan, Benjamin Jantzen, Bryan Mesmer
Kannan, H., Jantzen, B., **Mesmer, B.**, "A Formal Approach to Identify Inconsistencies in Stakeholder Needs in the Context of Systems Engineering", AIAA SciTech 2022, San Diego, CA/Virtual, January, 2022
American Institute of Aeronautics and Astronautics — Fall 2022

2022 UAH COE National Engineer's Week Outstanding Senior Faculty Award
Bryan Mesmer
UAH – College of Engineering — Spring 2022

2021 American Society for Engineering Management (ASEM) Meritorious Service Award
Bryan Mesmer, Javier Calvo-Amodio, Benjamin Kwasa
American Society for Engineering Management — Fall 2021

2020 American Society for Engineering Management (ASEM) Best Dissertation Award
Mitchell Bott, Bryan Mesmer
Bott, M., An Examination of the Theoretical Basis for Agile Engineering using Function-Behavior-Structure Framework and Agent-Based Modeling, The University of Alabama in Huntsville, Huntsville, AL, December, 2019
American Society for Engineering Management — Fall 2020

2019 University Undergraduate Research and Creative Activity Mentor Award
Bryan Mesmer
The University of Alabama in Huntsville — Spring 2019

2019 College of Engineering Outstanding Faculty Research Award
Bryan Mesmer
UAH- College of Engineering — Spring 2019

2018 American Society for Engineering Management (ASEM) Meritorious Service Award – Outstanding Non-Board Member
Bryan Mesmer
American Society for Engineering Management — Fall 2018

Moog Graduate Fellowship
Bryan Mesmer
Moog — Fall 2007

Undergraduate Degree Honor: Summa Cum Laude
Bryan Mesmer
State University of New York at Buffalo — Spring 2007

Award Cont'd

Dean's List
Bryan Mesmer
State University of New York at Buffalo — 2003-2007 All Semesters

ADVISED STUDENTS AWARDS

47 Awards/Honors

1st Place 2025 UAH Graduate Poster Session
Shivani Gupta
Gupta, S., Menon, V., Weger, K., **Mesmer, B.**, "An Investigation of Transparent Methods for Improved Human-AI Trust and Reliability in AI-Driven Autonomous Systems Applications," UAH Graduate Poster Session, Huntsville, AL, March, 2025
UAH – Graduate School — Spring 2025

Dr. Barry Boehm Award for Doctoral Student Research Excellence
Casey Eaton
$2,500
Systems Engineering Research Center — Fall 2024

Honorable Mention – Graduate Research Fellowship Program
Kelly Campo
National Science Foundation — Spring 2024

Ada I. Pressman Memorial Scholarship
Casey Eaton
$6,000
Society of Women Engineers — Spring 2023

Most Outstanding Graduate Presentation
Taylor Yeazitzis
Yeazitzis, T., Weger, K., **Mesmer, B.,** "Biases in Stakeholder Elicitation as a Precursor to the Architecting Process", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022
$1,100
Society of Reliability Engineers — Fall 2022

Most Outstanding Undergraduate Presentation
Thomas Teper
Teper, T., Campo, K., Eaton, C., **Mesmer, B.,** "Developing Model-Based Systems Engineering Pseudo-Value Models for Industry Application", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022
$800
Society of Reliability Engineers — Fall 2022

Second Most Outstanding Undergraduate Presentation
Kelly Campo
Campo, K., Eaton, C., Liverett, G., **Mesmer, B.,** "Analyzing Technical Measurement Guidance in Literature", Society of Reliability Engineers RAM XIV 2022 Training Summit, Huntsville, AL, November 2nd, 2022
$400
Society of Reliability Engineers — Fall 2022

Advised Students Awards Cont'd

2nd Place 2022 UAH Graduate Poster Session
Taylor Yeazitzis
Yeazitzis, T., Falcon, A. K., Weger, K., & **Mesmer, B.**, "Non-Financial Aspects of Affordability Improvement at NASA", UAH Graduate Poster Session, Huntsville, AL, March, 2022
$200
UAH – Graduate School — Spring 2022

1st Place College of Arts, Humanities & Social Sciences Undergraduate Research Horizons
Nathaniel Branham
Branham, N., Easly, T., Hornyak, B., Painter, R., Rigsby, T., Weger, K., Leder, S., **Mesmer, B.,** Jones, N., Menon, V., Fahimi, F., Loyd, N., Argentina, V., & Taylor, C., "Interdisciplinary Undergraduate Experience (INCLUDE): Addressing the Design of an Autonomous Robot Through an Interdisciplinary Lens", UAH Research Horizons, Huntsville, AL, March 2022
UAH- College of Arts, Humanities & Social Sciences — Spring 2022

Best Presentation at 2021 SERC Doctoral Student Forum
Christopher White
White, C., **Mesmer, B.,** "Reexamining the Logical Foundation of Engineering Decision Making Under Uncertainty", SERC Doctoral Students Forum, Virtual, November, 2021
Systems Engineering Research Center — Fall 2021

Outstanding Graduate Presentation
Katherine Loveday Glandon
Glandon, K.L., Eaton, C., **Mesmer, B.,** "Improving Reliability through Failure Classification: Possible Implementation Paths", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1, 2021
$800
Society of Reliability Engineers — Fall 2021

Outstanding Undergraduate Presentation
Shivani Patel
Patel, S., Eaton, C., **Mesmer, B.,** "The Impact of the Faster, Better, Cheaper Movement at NASA on Perceptions of Failure and Success of NASA Projects", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1, 2021
$600
Society of Reliability Engineers — Fall 2021

Overall Most Outstanding Graduate Presentation
Casey Eaton
Eaton, C., **Mesmer, B.,** "When Do Measures Fail? Understanding the Pitfalls of Technical Measures in Engineering Design Through Case Studies Illustrating Goodhart's Law", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1, 2021
$1,000
Society of Reliability Engineers — Fall 2021

Advised Students Awards Cont'd

Overall Most Outstanding Undergraduate Presentation
Thomas Teper

Teper, T., Campo, K., Eaton, C., **Mesmer, B.,** "Qualifying the Value of Life-Cycle Process Models to System Development", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1, 2021

$1,000

Society of Reliability Engineers — Fall 2021

Outstanding Undergraduate Presentation
Kelly Campo

Campo, K., Teper, T., Eaton, C., **Mesmer, B.,** "Model-Based Systems Engineering: Investigating Reliability and Maintainability", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1, 2021

$800

Society of Reliability Engineers — Fall 2021

Outstanding Graduate Presentation
David Perner

Perner, D., **Mesmer, B.,** "Leveraging SysML for Reliability Analysis with Category Theory", Society of Reliability Engineers RAM XIII 2021 Training Summit, Huntsville, AL, December 1, 2021

$400

Society of Reliability Engineers — Fall 2021

Amelia Earhart Fellowship
Casey Eaton

$10,000

Zonta International — Summer 2021

1st Place College of Engineering Undergraduate Research Horizons
Anna Shipman

Shipman, A., Cortelli, R., Flint, A., Simon, H., Bass, H., Berhow, E., Atchley, A., Travis, M., **Mesmer, B.,** Weger, K., Argentina, V., Jones, N., Hsu, L., "Interdisciplinary Undergraduate Experience (INCLUDE): Conceptualizing a Space Ecosystem", UAH Research Horizons, Virtual, March, 2021

UAH- College of Engineering — Spring 2021

3rd Place College of Engineering Graduate Research Horizons
Casey Eaton

Eaton, C., McGukin, R., Gearhardt, L., **Mesmer, B.,** "Using a Failure Classification Scheme to Better Understand NASA Case Studies", UAH Research Horizons, Virtual, March, 2021

UAH- College of Engineering — Spring 2021

2nd Place College of Science Undergraduate Research Horizons
Jennifer Petrillo

Petrillo, J., **Mesmer, B.,** "Application of Software Architecture Strategies to CAS Systems", UAH Research Horizons, Virtual, March, 2021

UAH- College of Science — Spring 2021

Advised Students Awards Cont'd

3rd Place College of Arts, Humanities & Social Sciences Undergraduate Research Horizons
Rosemary Cortelli
Cortelli, R., Weger, K., **Mesmer, B.,** "Psychological Attributes in Future Spaceport Concepts", UAH Research Horizons, Virtual, March, 2021
UAH- College of Arts, Humanities & Social Sciences — Spring 2021

Outstanding Presentation
Amanda Banks
Banks, A., Guerin, A., **Mesmer, B.,** Weger, K., "Can They Say That? Uncovering Hidden Truths Through Improv Theater", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019
$800
Society of Reliability Engineers — Fall 2019

Outstanding Presentation
Cassandra Martin
Martin, C., Weger, K., **Mesmer, B.,** "Assessing Affordability Culture in NASA", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019
$800
Society of Reliability Engineers — Fall 2019

Outstanding Presentation
Elizabeth Cavin
Cavin, E., Gholston, S., **Mesmer, B.,** "Virtual Environment Software Statistical Analysis", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019
$800
Society of Reliability Engineers — Fall 2019

Outstanding Presentation Sponsored by MTA
Christopher White
White, C., **Mesmer, B.,** "Addressing Finitely Repeated Problems in Engineering Decision Making Under Uncertainty", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019
$1,000
Society of Reliability Engineers — Fall 2019

Most Outstanding Presentation
Casey Eaton
Eaton, C., Banks, A., **Mesmer, B.,** Weger, K., "What Causes Failures in Projects? Analyzing Factors in Failure Classification Schemes", Society of Reliability Engineers RAM Training Summit XII, Huntsville, AL, November 14th, 2019
$1,000
Society of Reliability Engineers — Fall 2019

2019 ASEM Undergraduate Student Scholarship
Amanda Banks
$500
American Society for Engineering Management — Fall 2019

Advised Students Awards Cont'd

2019-2020 Academic Scholarship Winner
Cameron McWilliams
$1,500
Huntsville Association of Small Businesses in Advanced Technology (HASBAT)
Spring 2019

2019 ISEEM Outstanding Graduate Student Award
Christopher White
UAH- Industrial and Systems Engineering and Engineering Management Department
Spring 2019

Most Outstanding Presentation Sponsored by MTA
Christopher White
White, C., **Mesmer, B.,** "Exergy Efficiency Optimization of a Rocket Launch Vehicle", Society of Reliability Engineers RAM Training Summit XI, Huntsville, AL, October 24th, 2018
$1,000
Society of Reliability Engineers
Fall 2018

Most Outstanding Presentation
Shahrom Doneshwar
Doneshwar, S., **Mesmer, B.,** "Systems Approach for the NASA MarsBee Mission", Society of Reliability Engineers RAM Training Summit XI, Huntsville, AL, October 24th, 2018
$1,000
Society of Reliability Engineers
Fall 2018

Amelia Earhart Fellowship
Garima Bhatia
$10,000
Zonta International
Spring 2018

2018 ISEEM Outstanding Graduate Student Award
Garima Bhatia
UAH- College of Engineering
Spring 2018

Most Outstanding Presentation Sponsored by MTA
Garima Bhatia
Bhatia, G., **Mesmer, B.,** "Integrating SysML with VBD for the NEA Small Satellite Example", Society of Reliability Engineers RAM Training Summit X, Huntsville, AL, November 9th, 2017
$1,000
Society of Reliability Engineers
Fall 2017

Most Outstanding Presentation
Joseph Clerkin
Clerkin, J., **Mesmer, B.,** "Congressional Value Model", Society of Reliability Engineers RAM Training Summit X, Huntsville, AL, November 9th, 2017
$1,000
Society of Reliability Engineers
Fall 2017

Advised Students Awards Cont'd

Outstanding Presentation
Giulia Palma
Palma, G., **Mesmer, B.,** "NASA Habitat: Framework for an Analysis of Preference Communication", Society of Reliability Engineers RAM Training Summit X, Huntsville, AL, November 9th, 2017
$800
Society of Reliability Engineers — Fall 2017

Full Participation Scholarship – NSF ESD Research Methods Summer School
Garima Bhatia
Clemson University/NSF — Summer 2017

Partial Participation Scholarship – NSF ESD Research Methods Summer School
Giulia Palma
Clemson University/NSF — Summer 2017

2017 ISEEM Outstanding Graduate Student Award
Giulia Palma
UAH- College of Engineering — Spring 2017

American Helicopter Society Redstone Chapter Scholarship
Derek Millard
$2,000
AHS Redstone Chapter — Summer 2016

Most Outstanding Presentation
Giulia Palma
Palma, G., **Mesmer, B.,** "Storytelling in Engineering", Society of Reliability Engineers RAM Training Summit IX, Huntsville, AL, November 3rd, 2016
$1,000
Society of Reliability Engineers — Fall 2016

Outstanding Presentation
Garima Bhatia
Bhatia, G., Bloebaum, C., **Mesmer, B.,** "A Game Theory Approach to Negotiations in Defense Acquisitions in the context of Value-Driven Design: An Aircraft System Case Study", Society of Reliability Engineers RAM Training Summit IX, Huntsville, AL, November 3rd, 2016
$800
Society of Reliability Engineers — Fall 2016

Outstanding Presentation
Joseph Clerkin
Clerkin, J., **Mesmer, B.,** "Gaming in Systems Engineering", Society of Reliability Engineers RAM Training Summit IX, Huntsville, AL, November 3rd, 2016
$800
Society of Reliability Engineers — Fall 2016

Advised Students Awards Cont'd

2nd Place – Poster Competition
Andrew Gilbert

Gilbert, A., **Mesmer, B.,** "Multidisciplinary Design Optimization of Launch Vehicles Using Exergy as an Objective", Wernher von Braun Symposium Student Poster Competition, Huntsville, AL, October, 2016

Wernher von Braun Symposium — Fall 2016

2016 ICEEA Greater North Alabama Chapter Scholarship
Giulia Palma

International Cost Estimating and Analysis Association — Fall 2016

Next Generation Scholarship
Giulia Palma

National Storytelling Conference — Summer 2016

2016 ISEEM Outstanding Graduate Student Award
Giulia Palma

UAH- Industrial and Systems Engineering and Engineering Management Department — Spring 2016

PROFESSIONAL SOCIETIES

Notable Positions

AIAA Associate Fellow
AIAA SETC Chair
2020-2022
ASEM Fellow
ASEM Publications Director
2018-2023
ASEM IAC 2017 Logistics Chair
2016-2017
ASEE SED Chair
2021-2022
CESUN Treasurer
2024-Present
INCOSE Assistant Director of Faculty Matters
2023-Present

Current/Past Society Membership

AHS
AIAA
ASEE
ASEM
CESUN
IEEE
IISE
INCOSE

American Helicopter Society

Positions

Member — 2016-2017

2015 AHS Systems Engineering Technical Specialists' Meeting
- Organizing Committee Member — 2015-2015

American Institute of Aeronautics and Astronautics

Positions

Associate Fellow — 2024-Present

Senior Member — 2020-2024

Member — 2010-2020

Systems Engineering Technical Committee (SETC)
- Chair Emeritus — 2022-2024
- Member — 2016-Present
- Chair — 2020-2022
- Vice Chair — 2018-2020
- Vice Chair Elect — 2018-2018
- Website Editor — 2017-2018

Meetings Attended: 1/16, 10/16, 1/17, 1/18, 9/18, 1/19, 1/20, 1/21, 1/22, 1/23, 1/24, 1/25
Meetings Led: 1/19, 1/21, 1/22

Multidisciplinary Design Optimization Technical Committee (MDOTC)
- Member — 2015-2020
- Education Sub Committee Member — 2015-2020

Meetings Attended: 6/15, 1/16, 1/17, 6/17, 1/18, 1/20

Student Group Advisor

Women of Aeronautics and Astronautics (WoAA) UAH Chapter
- Advisor — 2020-Present

Judge

- SciTech 2017 – Student Paper Competition
- SciTech 2016 – Student Paper Competition

Paper Reviewer

- SciTech 2018 – Student Paper Competition
- Aviation 2016 – Student Paper Competition

Leadership Training

- SciTech 2019
- SciTech 2018

Contributor

- 2018 Aerospace America SETC Year in Review Article, "Systems Engineering Draw Lessons from Artistry

Professional Societies Cont'd

American Society for Engineering Education

Positions

Member — 2018-2023

Systems Engineering Division (SED)

- Immediate Past Chair — 2022-2023
- Chair — 2021-2022
- Program Chair — 2019-2021
- Treasurer/Secretary — 2018-2019

Meetings Attended: 6/18, 6/19, 6/20, 7/21, 6/22, 6/23
Meetings Led: 7/21, 6/22

Judge

- 2020 Annual Conference – PIC II Best Paper Competition
- 2019 Annual Conference – Student Paper Competition

Leadership Training

- 2019 Annual Conference
- 2020 Virtual

American Society for Engineering Management

Positions

- Fellow — 2024-Present
- Member — 2014-Present
- Publications Director — 2018-2023
- Past International Annual Conference Logistics Chair — 2017-2018
- International Annual Conference Logistics Chair — 2016-2017

Board Meetings Attended: 3/17, 10/17, 3/18, 10/19, 5/20, 10/20, 3/21, 10/21, 3/22, 10/22, 3/23

Conference Event Organizer

- IAC 2017 - Keynote Speakers: Todd May (Director, NASA MSFC), Lisha Adams (Executive Deputy, USAMC), Amy Hawkins (UX Manager, Hexagon), Jeff Langhout (Acting Director, AMRDEC)
- IAC 2017 - Social Event at U.S. Space and Rocket Center
- IAC 2017 - Tours to Alabama Robotics Technology Park, Redstone Arsenal, and U.S. Space and Rocket Center

Conference Systems Engineering Track Co-Chair

- IAC 2025
- IAC 2024
- IAC 2023
- IAC 2022
- IAC 2021
- IAC 2020
- IAC 2019
- IAC 2018
- IAC 2016

Judge

- IAC 2019 - Student Case Competition
- IAC 2016 - Student Case Competition

Professional Societies Cont'd

Council of Engineering Systems Universities

Positions

Executive Committee Member — 2024-present

Treasurer — 2024-present

Technical Program Committee

- CESUN 2023 Conference

Judge

- CESUN 2025 – Best Poster Presentation
- CESUN 2023 – Best Presentation Competition

Institute of Electrical and Electronics Engineers

Positions

Member — 2015-2016

Institute of Industrial and Systems Engineers

Positions

Member — 2015-2016

Judge

- Annual Conference 2017 - Student Paper Competition

International Council on Systems Engineering

Positions

Member — 2018-2019, 2021-present

Assistant Director, Faculty Matters — 2023-present

Career Development Path Project
Member — 2025-present

Strategic Events Planning Committee Task Team
Member — 2024-2025

Systems Engineering Principles Action Team
Member — 2018-2023

Student Socio-Technical Systems Project Planning Team
Member — 2020-2022

Corporate Advisory Board
UAH Representative — 2024-present

Student Group Advisor

University of Alabama in Huntsville Student Division
Advisor — 2022-Present

Judge

- IS 2025 - Best Student Paper Competition
- IS 2024 – Best Student Paper Competition
- IS 2023 – Best Student Paper Competition

Systems Engineering Research Center

Positions

2025 AI4SE Workshop Organizing Committee
Member — 2025-2025

SESSION CHAIR

American Helicopter Society

- 2015 Systems Engineering Technical Specialists' Meeting

American Institute of Aeronautics and Astronautics

- Aviation 2017 - MDO-12. Aircraft Design Optimization I
- Aviation 2017 - MDO-04. Design Optimization of Complex Engineered Systems II
- Aviation 2015 - MAO-10. Shape and Topology II
- Aviation 2015 - MAO-06. Emerging Methods II
- Aviation 2014 - MAO-12. Uncertainty II
- SciTech 2021 - SE-07. Systems Engineering VII
- SciTech 2020 - MDO-05. Application of MDO for Vehicle Design
- SciTech 2019 - SE-01. Systems Engineering I
- SciTech 2018 - MDO-04. Emerging Methods, Algorithms and Software Development in MAO I
- Space 2018 - SSEE-3. Complexity and M&S
- Space 2016 - SSEE-6. Decision Analysis

American Society for Engineering Education

- ASEE 2021 – SED Technical Session 1
- ASEE 2021 – SED Technical Session 2
- ASEE 2020 – M348.SED Technical Session 1
- ASEE 2020 – T248.SED Technical Session 2
- ASEE 2019 - U448.SED Systems Thinking

American Society for Engineering Management

- IAC 2015 - Systems Engineering I

Council of Engineering Systems Universities

- International Engineering Systems Symposium 2023 – Decision Making in Systems
- International Engineering Systems Symposium 2016 - Methods for Infrastructure Resilience

Conference on Systems Engineering Research

- CSER 2025 – Model-Based Systems Engineering
- CSER 2023 – Testing, Verification, and Validation
- CSER 2020 – Enterprise Architecture Applications
- CSER 2020 – Beyond MBSE
- CSER 2018 - NASA 2
- CSER 2018 - NASA 1
- CSER 2017 - Formal Methods in Systems Engineering
- CSER 2016 - MBSE II

PANEL/ WORKSHOP ORGANIZER MODERATOR

Organized 21 panels/workshops

Moderated 15 panels/workshops

American Institute of Aeronautics and Astronautics

Panel Moderator/Organizer

- Space 2018 – CASE Human Representations in Systems Engineering
- Aviation 2017 – CASE Academic Roundtable

Panel Organizer/Academic Scholar

- SciTech 2021 – CASE Artificial Intelligence Ethics in Aerospace Contexts
- SciTech 2020 – CASE Art in Engineering for Complex Aerospace Systems
- SciTech 2019 – CASE Art in Engineering
- Aviation 2017 – CASE Model-Based Systems Engineering
- Space 2016 – CASE Envisioning the IT Infrastructure of the Future Aerospace Industry

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American Society for Engineering Management

Panel Moderator/Organizer

- IAC 2017 - Industry Panel: Engineering Management in Practice
- IAC 2017 - Industry Panel: Model-Based Systems Engineering in Practice

Workshop Moderator/Organizer

- IAC 2017 - Workshop: Tools and Theories of Model-Based Systems Engineering

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Conference on Systems Engineering Research

Workshop Moderator/Organizer

- CSER 2025 – Systems Engineering Tenure/Tenure-Track Interest Group Workshop, Co-Moderator with Salado, A.

Panel Moderator/Organizer

- CSER 2025 – Architecting or Design: Where's the Line
- CSER 2019 - Call of Workshop Duty: Advancing Games Research, Co-Moderator with Bayrak, E.

Council of Engineering Systems Universities

Panel Moderator/Organizer

- CESUN 2025 Conference – Pressing Research Problems from Industry

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International Council on Systems Engineering

Workshop Moderator/Organizer

- 2025 International Workshop – Architecture Scientification I - Foundations, Co-Organizer with Salado, A.
- 2025 International Workshop – Scientification of Architecture – Methodologies, Co-Organizer with Salado, A.

NASA Cost and Schedule Symposium

Workshop Moderator/Organizer

- 2019 Symposium – The Truth Can Be Funny: Insights from Improv, Co-Organizer with Moreland, R., and Friedrich, D.

Systems Engineering Research Center

Workshop Moderator/Organizer

- February 2023 – The SERC Applied Architecture Workshop, Co-Organizer with Weger, K., McDermott, T., Guerin, A., and Caioli, B.

Panel Moderator/Organizer

- AI4SE & SE4AI 2025 – Engineering for Humans vs. Engineering for AI

Panel/ Workshop Organizer Moderator Cont'd

U.S. Space & Rocket Center

Panel Moderator/Organizer

- 2025 AI Symposium: Autonomous Vs. Human-in-the-Loop - The Uniqueness of AI-Enabled Systems

Panel Organizer

- 2025 AI Symposium: Autonomous Vs. Human-in-the-Loop – Research Methods for Studying AI and Human Systems

FUNDING AGENCY PANELIST

Reviewer for 2 Agencies

- National Science Foundation
- Mid-American Transportation Center

JOURNAL REVIEWER

Reviewer for 15 journals

- ASME Journal of Computing and Information Science in Engineering
- Journal of Systems Science and Systems Engineering
- Engineering Management Journal
- Safety Science
- ASME Press (Book Chapter)
- Engineering Design
- Systems Engineering
- Design Science
- American Society of Mechanical Engineers (ASME) Journal of Mechanical Design
- Structural and Multidisciplinary Optimization Journal
- Fire Safety Journal
- IEEE Transactions on Human-Machine Systems
- MDPI Systems
- Journal of Spacecraft and Rockets
- IEEE Open Journal of Systems Engineering

CONFERENCE PAPER REVIEWER

Reviewer for 46 conferences of 8 societies

American Institute of Aeronautics and Astronautics

- ASCEND 2020
- Aviation 2021
- Aviation 2020
- Aviation 2019
- Aviation 2018
- Aviation 2017
- Aviation 2016
- Aviation 2015
- Aviation 2014
- SciTech 2024
- SciTech 2023
- SciTech 2021
- SciTech 2020
- Space 2018
- Space 2017

American Society for Engineering Education

- 2021 Annual Conference
- 2020 Annual Conference
- 2019 Annual Conference
- 2018 Annual Conference

American Society for Engineering Management

- IAC 2025
- IAC 2024
- IAC 2023
- IAC 2022
- IAC 2021
- IAC 2020
- IAC 2019
- IAC 2018
- IAC 2016

American Society of Mechanical Engineering

- MSEC 2019
- IDETC/CIE 2018
- IDETC/CIE 2017
- IDETC/CIE 2016
- IDETC/CIE 2015
- IDETC/CIE 2014

Council of Engineering Systems Universities

- CESUN 2025 Conference
- CESUN 2016 Conference

Conference Paper Reviewer Cont'd

Conference on Systems Engineering Research

- CSER 2025 Conference
- CSER 2024 Conference
- CSER 2020 Conference
- CSER 2019 Conference
- CSER 2017 Conference

Institute of Electrical and Electronics Engineers

- SysCon 2019
- SysCon 2017
- SysCon 2016

Institute of Industrial and Systems Engineers

- IIE Annual Conference and Expo 2015
- IISE Annual Conference and Expo 2017

WORKSHOP PARTICIPATION

Participant in 39 Workshops

American Institute of Aeronautics and Astronautics

- AIAA Virtual Leadership Symposium, May 2021
- Council of Directors Workshop, Orlando, FL, January 2020
- Committee Leadership Training, San Diego, CA, January 2019
- Council of Directors Workshop, San Diego, CA, January 2019
- Leadership Training, Orlando, FL, January 2018
- CASE Academic Forum, Dallas, TX, June 2015

Council of Engineering Systems Universities

- Annual meeting, Hanover, NH, March 2017
- Annual meeting, Philadelphia, PA, April 2015

International Council on Systems Engineering

- International Workshop 2025, Seville, Spain, January 2025
- International Workshop 2024, Los Angeles, CA, January 2024
- International Workshop 2023, Los Angeles, CA, January 2023
- International Workshop 2022, Torrance, CA/Virtual, January 2022
- International Workshop 2021, Virtual, January 2021
- International Workshop 2020, Los Angeles, CA, January 2020
- Systems Engineering Principles Action Team Workshop, Washington DC, December 2018
- International Workshop 2018, Jacksonville, FL, January 2018

National Aeronautics and Space Administration

- Human Spaceflight Knowledge Sharing Forum, Huntsville, AL, November 2016
- Systems Engineering Consortium Meeting: SE Practitioner's Guide Discussion, Huntsville, AL, May 2015

Workshop Participation Cont'd

National Science Foundation

- Design Circle Workshop: Designing and Developing Global Engineering Systems, Corvallis, OR, March 2018
- CAREER Writing Workshop, Portland, OR, April 2017
- Design Circle and ESD/SYS Grantees Workshop, Atlanta, GA, January 2017
- Design Circle and ESD/SYS Grantees Workshop, Clemson, SC, November 2015
- Decision Engineering: From Engineering Phenomenon to Value, Arlington, VA, October 2015
- Theory of Systems Engineering Workshop, Arlington, VA, November 2014
- CAREER Proposal Writing Workshop, Buffalo, NY, August 2014
- NSF/NASA Workshop on Large-Scale Complex Engineered Systems: From Basic Research through Product Realization, Arlington, VA, February 2012
- The Future of Multidisciplinary Design Optimization: Advancing the Design of Complex Systems Workshop, Fort Worth, TX, September 2010
- Design of Large-Scale Complex Systems Workshop, Fort Worth, TX, September 2010

Systems Engineering Research Center

- AI for SE & SE for AI Workshop, Washington DC, September 2025
- AI for SE & SE for AI Workshop, Washington DC, September 2024
- AI for SE & SE for AI Workshop, Virtual, October 2023
- AI for SE & SE for AI Workshop, Washington DC, September 2023
- AI for SE & SE for AI Workshop, Virtual, September 2022
- AI for SE & SE for AI Research and Application Workshop, Virtual, October 2021

Miscellaneous

- Modular Open Systems Approach (MOSA) Industry & Government Summit & Expo, Atlanta, GA, September, 2023
- Society of Reliability Engineers RAM Training Summit IX, Huntsville, AL, November 3rd, 2016
- Design Computing and Cognition 2016 (DCC16): Games for Design Research and Education, Evanston, IL, June 2016
- Research Needs in Systems Engineering, Huntsville, AL, May 2015
- Future Faculty Workshop, Buffalo, NY, Spring 2010

CONFERENCE PARTICIPATION

Participated in 75 conferences

American Astronomical Society

- 232nd Meeting, Denver, CO, June, 2018

American Helicopter Society

- Development, Affordability and Qualification of Complex Systems, Huntsville, AL, February, 2016
- Systems Engineering Technical Specialists' Meeting, Huntsville, AL, September, 2015

Conference Participation Cont'd

American Institute of Aeronautics and Astronautics

- ASCEND 2020, Online, November, 2020
- Aviation 2017, Denver, CO, June, 2017
- Aviation 2015 Conference, Dallas, TX, June, 2015
- Aviation 2014, Atlanta, GA, June, 2014
- SciTech 2025, Orlando, FL, January 2025
- SciTech 2023, Washington DC, January 2023
- SciTech 2022, San Diego, CA/Virtual, January 2022
- SciTech 2021, Virtual, January 2021
- SciTech 2020, Orlando, FL, January 2020
- SciTech 2019, San Diego, CA, January, 2019
- SciTech 2018, Orlando, FL, January, 2018
- SciTech 2017, Dallas, TX, January, 2017
- SciTech 2016, San Diego, CA, January, 2016
- SciTech 2015, Kissimmee, FL, January, 2015
- Space 2018, Orlando, FL, September, 2018
- Space 2016, Long Beach, CA, September, 2016
- 14th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference (MA&O), Indianapolis, IN, September, 2012
- 13th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference (MA&O), Dallas, TX, September, 2010

American Society for Engineering Education

- 2021 Annual Conference & Exposition, Virtual, July, 2021
- 2020 Annual Conference & Exposition, Virtual, June, 2020
- 2019 Annual Conference & Exposition, Tampa, FL, June, 2019
- 2018 Annual Conference & Exposition, Salt Lake City, UT, June, 2018

American Society for Engineering Management

- 2025 IAC, Boise, ID, September, 2025
- 2024 IAC, Virginia Beach, VA, November, 2024
- 2023 IAC, Denver, CO, October, 2023
- 2022 IAC, Tampa, FL, October, 2022
- 2021 IAC, Virtual, October, 2021
- 2020 IAC, Virtual, October, 2020
- 2019 IAC, Philadelphia, PA, October, 2019
- 2018 IAC, Coeur d'Alene, ID, October, 2018
- 2017 IAC, Huntsville, AL, October, 2017
- 2016 IAC, Charlotte, NC, October, 2016
- 2015 IAC, Indianapolis, IN, October, 2015
- 2014 IAC, Virginia Beach, VA, October, 2014

Conference Participation Cont'd

American Society of Mechanical Engineering
- IDETC/CIE 2018, Quebec City, Canada, August, 2018
- IDETC/CIE 2014, Buffalo, NY, August, 2014

Conference on Systems Engineering Research
- CSER 2025, Long Beach, CA, March, 2025
- CSER 2024, Tucson, AZ, March, 2024
- CSER 2023, Hoboken, NJ, March, 2023
- CSER 2020, Virtual, October, 2020
- CSER 2019, Washington DC, April, 2019
- CSER 2018, Charlottesville, VA, May, 2018
- CSER 2017, Redondo Beach, CA, March, 2017
- CSER 2016, Huntsville, AL, March, 2016

Council of Engineering Systems Universities
- CESUN 2025, Washington DC, June, 2025
- CESUN 2023, Evanston, IL, November, 2023
- CESUN 2021, Virtual/Charlottesville, VA, October, 2021
- CESUN 2016, Washington DC, June, 2016

Govmates
- MOSA Institute, Huntsville, AL, April, 2025

Hexagon
- Hexagon Live 2016, Anaheim, CA, June, 2016

Institute of Electrical and Electronics Engineers
- SysCon 2016, Orlando, FL, April, 2016
- SysCon 2015, Vancouver, BC, April, 2015

Institute of Industrial and Systems Engineers
- IISE Annual Conference 2019, Orlando, FL, May, 2019
- IIE Annual Conference and Expo 2015, Nashville, TN, May, 2015

International Conference on Evacuation Modeling and Management
- 2nd ICEM, Chicago, IL, August, 2012

International Council on Systems Engineering
- 2025 INCOSE International Symposium, Ottawa, CA, July, 2025
- 2019 INCOSE International Symposium, Orlando, FL, July, 2019

International Society for the Systems Sciences
- 62nd Annual Meeting, Corvallis, OR, July, 2018

Joint Army-Navy-NASA-Air Force
- 13th Modeling and Simulation, Tampa, FL, December, 2019

Joint Interagency Field Experimentation Program (JIFX)
- JIFX 20-4 Technology Expo, Online, September, 2020

Conference Participation Cont'd

NASA Cost and Schedule Symposium

- 2019 Symposium, Houston, TX, August, 2019

NASA Innovative Advanced Concepts

- 2018 Symposium, Boston, MA, September, 2018

National Defense Industrial Association

- 2025 Model-Based Systems Engineering Symposium, Huntsville, AL, May, 2025
- 2022 Systems Engineering and Mission Engineering Conference, Orlando, FL, November, 2022

Southeast Symposium on Contemporary Engineering Topics

- 2018 SSCET, Huntsville, AL, August, 2018
- 2016 SSCET, Jackson, MS, August, 2016

Systems Engineering Research Center

- Sponsor Research Review 2024, Washington DC, November, 2024
- Sponsor Research Review 2023, Washington DC, November, 2023
- Sponsor Research Review 2022, Washington DC, November, 2022
- Sponsor Research Review 2021, Online, November, 2021
- Sponsor Research Review 2020, Online, November, 2020
- Sponsor Research Review 2018, Washington DC, November, 2018

Vertical Flight Society

- 2022 Helicopter Military Operations Technology Meeting (HELMOT) XIX, Newport News, VA, December, 2022

World Congress of Structural and Multidisciplinary Optimization

- 10th WCSMO, Orlando, FL, May, 2013

External Tenure Committee Evaluator

- External Tenure Committee Reviewer, Institution Withheld, 2022

UAH UNIVERSITY SERVICE

Participant in:

Search Committees:	13
Univ. Committees:	6
College Committees:	5
Dept. Committees:	12
Representative:	12
Judge:	4

Search Committees

Engineering Management Clinical Professor Search
Committee Chair — 2025-2025

Eminent Scholar in Management of Technology Search
Committee Member — 2025-present

Systems Engineering Assistant Professor Search
Committee Chair — 2022-2023

Industrial Engineering Assistant Professor Search
Committee Chair — 2022-2023

Systems Engineering Assistant Professor Search
Committee Chair — 2021-2022

Industrial Engineering Assistant Professor Search
Committee Chair — 2021-2022

Computer Engineering Assistant Professor Search
External Committee Member — 2021-2022

Industrial and Systems Engineering Lecturer Search
Committee Member — 2021-2021

Engineering Management Professor Search
Diversity Lead, Committee Member — 2018-2019

Human Factors/Engineering Psychology Assistant Professor Search
External Committee Member — 2018-2019

Cyber-Physical Systems Assistant Professor Search
Diversity Lead, Committee Member — 2016-2017

COE Associate Dean for Graduate Education and Research Search
Committee Member — October 2015

Engineering Management Assistant Professor Search
Committee Member — 2014-2015

University Committees

2024-2025 UAH Distinguished Research, Creative Achievement, and Scholarly Performance Award Selection Committee
Member — April 2025

Institutional Review Board
Alternate Member — 2022-present

2019-2020 UAH Undergraduate Research and Creative Activity Mentor Award Selection Committee
Member — February 2020

UAH University Service Cont'd

Faculty Senate Undergraduate Scholastic Affairs Committee
Member 2020-2024

Faculty Senate Finance Committee
Member 2024-2024

Faculty Appeals Committee
Member 2024-present

College Committees

Mary Makima and Lester M. Ross, Senior, Scholarship in Engineering, Selection Committee
Member 2022, 2023, 2025

UAH College of Engineering Strategic Planning Ad hoc Committee for Leadership in Research
Member 2022-2023

2023-2024 UAH College of Engineering Promotion and Tenure Committee
Member 2023-2024

2022-2023 UAH College of Engineering Promotion and Tenure Committee
Member 2022-2023

2021-2022 UAH College of Engineering Promotion and Tenure Committee
Member 2021-2022

Department Committees

ISEEM Faculty Reappointment Committee
Committee Member 2025-2025

ISEEM Promotion and Tenure Committee
Committee Member 2024-2024

ISEEM Faculty Reappointment Committee
Committee Member 2024-2024

Psychology Promotion and Tenure Committee
Committee Member 2023-2024

MAE Faculty Reappointment Committee
Committee Member 2023-2023

CEE Faculty Reappointment Committee
Committee Member 2022-2022

CS Faculty Reappointment Committee
Committee Member 2022-2022

MAE Faculty Reappointment Committee
Committee Member 2021-2021

UAH University Service Cont'd

ISEEM Undergraduate Program Committee
Committee Member — 2018-2025

Engineering Management Program Restructuring Team
Committee Member — 2018-2023

ISEEM Systems Engineering Program Concentrations
Committee Member — 2017-2025

ISEEM Systems Engineering Program Admissions Committee
Committee Member — 2015-2025

UAH/ISEEM Department Representative

INCOSE Corporate Advisory Board
UAH Representative — January 2023

UAH Faculty Senate
ISEEM Senator — 2020-2024

Discovery Days
Volunteer — November 2019

IISE Council of Industrial Engineering Academic Department Heads
UAH ISEEM Representative for Dr. James Swain — May 2019

Discovery Days
Volunteer — November 2018

Discovery Days
Volunteer — November 2017

Council of Engineering Systems Universities Annual Meeting
UAH Representative — March 2017

UAH Graduate School Open House
Volunteer — November 2016

UAH Research Open House
Volunteer — August 2016

NASA/Brazil SPORT Meeting
UAH Representative — August 2015

Council of Engineering Systems Universities Annual Meeting
UAH Representative — April 2015

UAH Undergraduate Open House
ISEEM Representative — Fall 2014

Judging

UAH University Service Cont'd

FYE 101E Instant Challenges
Judge — August 2018

Alabama A&M University STEM Day Poster Competition, Undergraduate Mechanical & Civil & Construction Engineering Track
Judge — April 2018

UAH Charger Innovation Fund
Judging Committee Member — February 2016

Alabama Science and Engineering Fair
Judge — April 2015

Miscellaneous

Rocket City INCOSE Student Division Resume Workshop
Reviewer — March 2025

UAH Girls in Science and Engineering Day
Presenter — April 2022

UAH Engineering Advisory Board Meeting
Presenter — March 2022

ISEEM Summer Undergraduate Research Fellowship Advisor
Advisor — 2017

UAH Admitted Student Day Mock Class
Lecturer — April 2016

UAH Robotics and Unmanned Vehicle Labs Intergraph Tour
Organizer — April 2015

UAH Engineering Advisory Board Meeting
Presenter — February 2015

ISU UNIVERSITY SERVICE

Summer Program for Interdisciplinary Research and Education – Emerging Interface Technologies
Assistant Mentor — Summer 2014

AIAA Faculty Talks
Presenter — October 2013

First-Year Honors Mentor Program
Co-Mentor — Spring 2013

UB UNIVERSITY SERVICE

Graduate Student Association
Senator for Mechanical and Aerospace Engineering — 2010-2011

Freshman Move-in Day
Volunteer — 2010-2011

UB University Service Cont'd

Graduate School
Volunteer Tour Guide — 2011

Center for e-Design Planning Meeting
Presenter — Summer 2010

INDUSTRY EXPERIENCE

Design Engineer
Cobham: Carleton Technologies
June 2006-September 2010 — Orchard Park, NY
Weapon and Actuation Systems
Thermal Management Systems

ACADEMIC EXPERIENCE

Department Chair
The University of Alabama in Huntsville (UAH)
August 2025 - present — Huntsville, AL
Dept. of Industrial & Systems Engineering and Engineering Management

Director
Army Human Systems Laboratory
The University of Alabama in Huntsville (UAH)
December 2021-present — Huntsville, AL

Associate Professor
The University of Alabama in Huntsville (UAH)
August 2020-present — Huntsville, AL
Dept. of Industrial & Systems Engineering and Engineering Management

Assistant Professor
The University of Alabama in Huntsville (UAH)
August 2014-August 2020 — Huntsville, AL
Dept. of Industrial & Systems Engineering and Engineering Management

Post-Doctoral Research Associate
Iowa State University (ISU)
August 2012-August 2014 — Ames, IA
Dept. of Aerospace Engineering

Research Assistant
State University of New York (SUNY) at Buffalo
January 2010-August 2012 — Buffalo, NY
Dept. of Mechanical and Aerospace Engineering

Teaching Assistant
State University of New York (SUNY) at Buffalo
September 2007-June 2008 — Buffalo, NY
Dept. of Mechanical and Aerospace Engineering