Eduardo Pérez, Ph.D.

Industrial Engineering · Ingram School of Engineering · Texas State University
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Research Interests

Applications of operations research in service systems. Development of theory, methodology, and algorithms to support decisions under uncertainty and in the presence of large amounts of data. **Specializations:** Discrete-event simulation, agent-based simulation, and stochastic programming.

Education

Ph.D., Industrial and Systems Engineering 2004 – 2010
Texas A&M University (College Station, Texas, USA)

B.Sc., Industrial Engineering (Magna Cum Laude) 1998 – 2003
Universidad de Puerto Rico (Mayagüez, Puerto Rico)

Employment

Texas State University San Marcos, TX
Professor, Industrial Engineering, Ingram School of Engineering 09/24 – Present
Associate Professor, Industrial Engineering, Ingram School of Engineering 09/18 – 08/24
Assistant Professor, Industrial Engineering, Ingram School of Engineering 09/12 – 08/18

TXST Translational Health Research Center San Marcos, TX
Faculty Fellow In-Residence 08/25 – Present
Faculty Fellow 08/24 – 07/25
Faculty Fellow 08/22 – 07/23

Center for Accelerating Operational Efficiency (CAOE) – Arizona State University Tempe, AZ
Faculty Fellow 06/24 – 08/24
Faculty Fellow 06/22 – 08/22
Faculty Fellow 06/20 – 08/20

New York University New York, NY
Visiting Scholar, College of Global and Public Health 08/19 – 12/19

Texas A&M University College Station, TX
Postdoctoral Research Associate, Industrial and Systems Engineering 06/10 – 08/12

General Motors Research Labs Shelby Township, MI
Engineering Scientist Intern 05/06 – 08/06

Scotiabank Financial Services San Juan, PR
Operational Supporting Officer 01/04 – 08/04

Department of Transportation Puerto Rico San Juan, PR
Intermodal Planner Intern, Tren Urbano 05/03 – 08/03

Johnson & Johnson Pharmaceutical (McNeil Corp.)
Engineering Intern 05/02 – 08/02

Grants and Sponsored Projects

Federal and State Funding

- **PI**. "Incorporating Machine Learning Algorithms into Discrete-Event Simulation for Enhanced Workforce Planning in Airport Screening Operations" Jan 2025 – Jan 2026, Department of Homeland Security ($100,000)
- **PI**. "Integration of Machine Learning Algorithms and Discrete-Event Simulation for Workforce Planning in Airport Screening Facilities" June 2024 – Aug 2024, Department of Homeland Security-SRT ($36,000)

- **PI**. "Analyzing the Impact of Different Passenger Types when Allocating Airport Security Screening Resources in Security Terminal Checkpoints" Mar 2023 – Mar 2024, Department of Homeland Security ($60,000)
- **Co-PI**. "Robust Workforce Management at a Network of Screening Facilities" Aug 2022 – Aug 2023, Department of Homeland Security (Total: $258,606; Perez share: $98,000)
- **Senior Personnel**. "Nutrition for Underserved Elderly via Application (NUEVA)" Aug 2022 – Aug 2027, DHHS Administration for Community Living (Total: $3,000,000)
- **PI**. "A Simulation Based Strategy for Dynamic Workforce Allocation and Checkpoint Configuration in Airport Screening Facilities" May 2022 – Aug 2022, Department of Homeland Security-SRT ($24,000)
- **PI**. "A Simulation-Based Data Driven Approach to Manage the Allocation of Airport Security Screening Resources in Airport Terminal Checkpoints" May 2021 – Apr 2022, Department of Homeland Security ($75,000)
- **PI**. "A Simulation-Optimization Approach to Improve the Allocation of Airport Security Screening Resources in Airport Terminal Checkpoints" May 2020 – Aug 2020, Department of Homeland Security-SRT ($18,000)
- **PI**. "NSF-RAPID: Availability and Utilization of Key Healthcare Resources during the COVID-19 Pandemic in Rural Texas" May 2020 – Apr 2022, National Science Foundation ($58,000)
- **PI**. "Identification and Analysis of Key Dynamics Required for Sustainable Planning of the Texas Trauma System", Sep 2019 – Aug 2020, Texas Department of State Health Services ($11,000)
- **PI**. "NSF-RAPID: Identification and Analysis of Key Dynamics Required for Sustainable Operations of Texas Food Banks after Hurricane Disasters" Jan 2018 – Dec 2018, National Science Foundation ($50,000)
- **PI**. "Identifying System Factors of Significance in Improving Communication Between Providers and Patients to Achieve Health Equity" Sep 2016 – Aug 2017, Robert Wood Johnson Foundation ($50,000)
- **PI**. "NSF-EAGER: Minimizing Wind Farm Operation and Maintenance Cost Using Data-Driven Models" Sep 2015 – Aug 2016, National Science Foundation ($30,000)

Industry Sponsored Projects

- **Co-PI**. "Phase 4 Quality Assurance to Support Texas State Use Program Administration" Sep 2025 – Aug 2026, Texas Workforce Commission (Total: $275,000)
- **Co-PI**. "Exploratory Analysis and Quality Assurance to Support Texas State Use Program Administration" Sep 2021 – Aug 2024, Texas Workforce Commission (Total: $825,000; Perez share: $206,000)
- **Co-PI**. "Exploratory Analysis and Quality Assurance to Support Texas State Use Program Administration" May 2020 – Aug 2021, Texas Workforce Commission (Total: $198,000; Perez share: $60,000)
- **Co-PI**. "Joint Study for a Data-Intensive Analysis of the NEC In-Vehicle Passenger Detection System - Phase V" Nov 2018 – Aug 2019, NEC America ($9,200)
- **Co-PI**. "Joint Study for a Data-Intensive Analysis of the NEC In-Vehicle Passenger Detection System - Phase IV" Oct 2017 – Aug 2018, NEC America ($30,000)
- **Co-PI**. "Joint Study for a Data-Intensive Analysis of the NEC In-Vehicle Passenger Detection System - Phase III" Aug 2017 – Dec 2017, NEC America ($54,900)
- **PI**. "Minimizing Patient Waiting Time at Live Oak Walk-In Care: A Simulation Study", Jul 2016 – Jan 2017, Central Texas Medical Center ($15,000)
- **Co-PI**. "Joint Study for a Data-Intensive Analysis of the NEC In-Vehicle Passenger Detection System - Phase II" Mar 2016 – Aug 2016, NEC America ($44,600)
- **PI**. "Improving Patient Experience at the Central Texas Medical Center", Feb 2015 – Dec 2015, Central Texas Medical Center ($8,000)
- **PI**. "The Application of Simulation Modeling for Managing CAUTI rates in ICUs", Jun 2015 – Aug 2015, Baylor Scott & White Hospital ($1,700)
- **PI**. "Minimizing of Healthcare Associated Infections", Jun 2013 – May 2014, Baylor Scott & White Hospital ($50,000)

Internal University Grants

- **PI**. "CHERR: Providing Continuity of Care for Chronic Diseases After Natural Disasters: A Resource Allocation Model for Public Health Preparedness in Texas", Jul 2022 – Jun 2023, Texas State University Community Health and Economic Resiliency Research (CHERR) Center ($40,000)
- **PI**. "MIRG: Ensuring an Accessible Trauma System in Texas", Sep 2019 – Aug 2020, Texas State University Multidisciplinary Internal Research Grant - MIRG ($30,000)

- **PI**. "Learning Innovation Technologies in Industrial Engineering", Sept 2016 – Aug 2017, Texas State University Teaching and Learning Innovation Grant - TLIG ($5,000)
- **PI**. "MIRG: Minimizing of Healthcare Associated Infections", Jun 2013 – May 2014, Texas State University Multidisciplinary Internal Research Grant - MIRG ($25,000)
- **PI**. "REP: Using Simulation Modeling to Assess the Performance of Wind Farm Operations", Jan 2013 – Dec 2013, Texas State University Research Enhancement Program - REP ($8,000)

Honors and Awards

- TXST Presidential Award for Developmental Leave (Academic Year 25-26), 2025-2026
- Faculty Fellow In-Residence, TXST Translational Health Research Center (Academic Year 25-26), 2025
- Central Texas Food Bank Advisory Group – Named to Food System Data and Research Group, 2025
- Teaching Excellence Award of IISE Modeling & Simulation Division, 2025
- INFORMS Senior Member (Recognizing professional experience and commitment), 2024
- Faculty Fellow, TXST Translational Health Research Center (Academic Year 24-25), 2024
- U.S. Department of Homeland Security (DHS) Summer Research Team Appointment, 2024
- IISE Outstanding Global Faculty Advisor Award, 2023
- IISE South Central Region Outstanding Regional Faculty Advisor Award, 2023
- Institute of Industrial and Systems Engineering (IISE) OR Division Undergraduate Research Award (Mentored students Holly and Kayla Streber), 2022
- Faculty Fellow, TXST Translational Health Research Center (Academic Year 22-23), 2022
- U.S. Department of Homeland Security (DHS) Summer Research Team Appointment, 2022
- Elected President of INFORMS Minority Issues Forum, 2021-2023
- Elected Vice-President/President Elect of INFORMS Minority Issues Forum, 2019-2021
- U.S. Department of Homeland Security (DHS) Summer Research Team Appointment, 2020
- Texas State University Translational Health Research Award (Best poster presentation), 2019
- INFORMS MIF Early Career Award (National award recognizing outstanding contributions to OR/MS), 2018
- National Hispanic Health Foundation (NHHF) PCORI Hispanic Patient-Centered Health Research Mentorship, 2016
- George W. Kunze Prize (University-wide award for superior academic achievement), Texas A&M University, 2010
- GEM Fellowship Award (Doctoral pursuit fellowship), 2006
- Sloan Scholarship, 2005
- Selected for UPR-MIT Professional Development Program, 2002

Publications

Book Chapters

1. **Pérez, E.**, (2023) "A Simulation-Based Online Data-Driven Control Framework for Large-Scale Wind Farm Systems Operation." In *Handbook on Dynamic Data Driven Application Systems (DDDAS) (Vol. II)*, Springer, Cham, pp. 353-374.
2. **Pérez, E.**, M.M. Alvarado, and R. Fields, (2020) "Personalizing Healthcare in Smart Cities." In *Smart Cities in Application: Healthcare, Policy, and Innovation*, Springer, Cham, pp. 3-18.

Journal Articles (*underlined = Pérez's student*)

1. **Pérez, E.**, S.K. Greer, M. Van, K.S. Skidmore, K. Williams, and F.A. Méndez Mediavilla, (2025) "Masking Mandate Policies and Community-Level Factors Associated with COVID-19 Cases Spread in the State of Texas" *Journal of Racial and Ethnic Health Disparities*.
2. **Pérez, E.**, C.M. Johnson, Y. Li, and J.A. Pagán, (2025) "Optimizing access to fruits and vegetables in rural communities: A decision-making model for the placement of produce markets" *PLOS ONE*, Vol. 20, No. 9.
3. Farzana, F. and **Pérez, E.**, (2025) "Mixed Integer Programming Model for Planning Interventions to Care for Cardiovascular Patients after Natural Disaster", *SN Operations Research Forum*, Vol. 6, No. 127.
4. **Pérez, E.**, A. Joshi, S. Saha, and F.A. Méndez Mediavilla, (2025) "A Stochastic Programming Model for Trauma Hospital Network Expansion considering Rural Communities and COVID-19" *Health Care Management Sciences*, Vol. 28, No. 4, pp. 672-690.

5. Joshi, A., **Pérez, E.**, and F. Méndez Mediavilla, (2024) "An Empirical Analysis of Forecasting Methods for Trauma Injuries in Rural Areas - A Case Study" *International Journal of Industrial and Systems Engineering*, Vol. 48, No. 2, pp. 278-300. (IF: 1.5)
6. **Pérez, E.**, M. Sajan Varghese, and A.L. Schwarz, (2023) "A Decision Support System for Selecting Augmentative and Alternative Communication Devices" *International Journal of Industrial and Systems Engineering*, Vol. 98, No. 1, pp. 47-61. (IF: 1.5)
7. Marthak, Y.V., **Pérez, E.**, and F. Méndez Mediavilla, (2022) "Analysis and Forecast of Donations at Domestic Hunger Relief Organizations Impacted by Natural Disasters" *Socio-Economic Planning Sciences*, Vol. 98. (IF: 4.923)
8. **Pérez, E.** (2022) "An Appointment Planning Algorithm for Reducing Patient Waiting Times in Multispecialty Outpatient Clinics", *SN Operations Research Forum*, Vol. 3, No. 3, pp. 52-72. (IF: 0.75)
9. **Pérez, E.** (2022) "A Simulation-Driven Online Scheduling Algorithm for the Maintenance and Operation of Wind Farm Systems" *SIMULATION*, Vol. 98, No. 1, pp. 47-61. (IF: 1.762)
10. **Pérez, E.** and D.P. Dzubay, (2021) "A Scheduling-Based Methodology for Improving Patient Perceptions of Quality of Care in Intensive Care Units" *Health Care Management Sciences*, Vol. 24, No. 1, pp. 203-215. (IF: 3.979)
11. **Pérez, E.**, Y. Li, and J.A. Pagán (2021) "A Decision-Making Model to Optimize the Impact of Community-Based Programs" *Preventive Medicine*, Vol. 149. (IF: 4.637)
12. Marthak, Y.V., **Pérez, E.**, and F. Méndez Mediavilla, (2021) "A Stochastic Programming Model for Tactical Product Prepositioning at Domestic Hunger Relief Organizations Impacted by Natural Hazards" *Natural Hazards*, Vol. 107, pp. 2263-2291. (IF: 3.685)
13. **Pérez, E.**, V. Anandhan, and C. Novoa, (2020) "A Simulation Based Planning Methodology for Decreasing Patient Waiting Times in Pure Walk-in Clinics" *International Journal of Information Systems in the Service Sector (IJISSS)*, Vol. 12, No. 3, pp. 34-54. (IF: 1.07)
14. Alvarado, M.M., T.G. Cotton, L. Ntaimo, and **Pérez, E.**, (2018) "Modeling and Simulation of Oncology Clinic Operations in Discrete Event System Specifications" *SIMULATION*, Vol. 94, No. 2, pp. 105-121. (IF: 1.762)
15. **Pérez, E.**, R.R. Ambati, and A.J. Ruiz-Torres, (2018) "Maximizing the Percentage of On-Time Jobs with Sequence Dependent Deteriorating Processing Times and Periodic Maintenance", *International Journal of Operational Research*, Vol. 32, No. 3, pp. 267-289. (IF: 0.91)
16. **Pérez, E.**, B. Uyan, R.E. Rohde, H. Wehbe-Janek, A.K. Hochhalter, and S.H. Fenton, (2017) "Assessing Catheter Associated Urinary Tract Infections Prevention Intervention in Intensive Care Units: A Discrete Event Simulation Study" *IIE Transactions on Healthcare Systems Engineering*, Vol. 7, No. 1, pp. 43-52, 2017. (*Article featured by the Editor-in-Chief in the April Issue 2017 of IIE Magazine*)
17. **Pérez, E.**, B. Uyan, D.P. Dzubay, and S.H. Fenton, (2017) "Catheter-Associated Urinary Tract Infections: Challenges and Opportunities for the Application of Systems Engineering", *Health Systems*, Vol. 6, No. 1, pp. 68-76, 2017.
18. Ruiz-Torres, A.J., G. Paletta, and **Pérez, E.**, (2015) "Maximizing the Percentage of On-Time Jobs with Sequence Dependent Deteriorating Processing Times", *Int. J. of Operations Research and Information Systems (IJORIS)*, Vol. 6, No. 3, pp. 1-18, 2015.
19. Ruiz-Torres, A.J., N. Alomoto, G. Paletta, and **Pérez, E.**, (2015) "Scheduling to Maximize Worker Satisfaction and On-Time Orders", *International Journal of Production Research (IJPR)*, Vol. 53, No. 9, pp. 2836-2852.
20. **Pérez, E.**, Y. Ding and L. Ntaimo, (2015) "Multi-Component Wind Turbine Modeling and Simulation for Wind Farm Operations and Maintenance", *SIMULATION*, Vol. 9, No. 4, pp. 360-382, 2015.
21. Ruiz-Torres, A.J., G. Paletta, and **Pérez, E.**, (2013) "Parallel Machine Scheduling to Minimize the Makespan with Sequence Dependent Deteriorating Effects", *Computers & Operations Research*, Vol. 40, No. 8, pp. 2051-2061.
22. **Pérez, E.**, L. Ntaimo, C. O. Malavé, C. Bailey and P. McCormack, (2013) "Stochastic Online Appointment Scheduling of Multi-Step Medical Procedures in Nuclear Medicine", *Health Care Management Sciences*, Vol. 16, No. 4, pp. 281-299.
23. Gallego, J.A., Y.M. Ko, R.J. Polansky, **Pérez, E.**, L. Ntaimo, and N. Gautam, (2013) "Integrating Virtualization, Voltage Scaling and Powering On/Off Servers in Data Centers for Energy Efficiency", *IIE Transactions*, Vol. 45, pp. 1114-1136.
24. **Pérez, E.**, L. Ntaimo, W.E. Wilhelm, C. Bailey and P. McCormack, (2011) "Patient and Resource Scheduling of Multi-Step Medical Procedures in Nuclear Medicine", *IIE Transactions on Healthcare Systems Engineering*, Vol. 1, No. 3, pp. 168-184.
25. Byon, E., **Pérez, E.**, Y. Ding and L. Ntaimo, (2011) "Simulation of Wind Farm Maintenance Operations using DEVS", *SIMULATION*, Vol. 87, No. 12, pp. 1091-1115.
26. **Pérez, E.**, L. Ntaimo, C. Bailey and P. McCormack, (2010) "Modeling and Simulation of Nuclear Medicine Patient Service Management in DEVS", *SIMULATION*, Vol. 86, No. 8-9, pp. 481-501.

Submitted / In Revision / In Preparation (*underlined = Pérez's student*)

1. Iqbal Farabi, Y. and **E. Pérez**, "The Vehicle Routing Problem with Multiple Driver Allocation for Nonprofit Organizations", submitted.
2. **Pérez, E.**, D. Zertuche, D. Martinez, and J. Sefair, "A Simulation based Optimization Workforce Allocation Method to Improve Airport Security Screening Operations", submitted.
3. **Pérez, E.**, E. Ekren, and R. Mohan, "Predicting and Managing Cognitive Decline: A Scoping Review of Simulation Modeling in Elderly Care", in preparation.
4. Rahman, I., A. Dutta and **E. Pérez**, "Scalable Surrogate Modeling for Stochastic Agent-Based Disaster Simulations in Cardiovascular Risk Analysis", in preparation

Conference Proceedings (*underlined = Pérez's student*)

1. Iqbal Farabi, Y. and **E. Pérez**, "Stochastic Vehicle Routing and Resource Allocation for Nonprofits under Uncertain Volunteer Availability, *Proceedings of the IISE Conference 2026*, Arlington, TX.
2. Rahman, I., A. Dutta, and **E. Pérez**, "Machine LearningBased Surrogate Modeling for Cardiovascular Disease Forecasting During Natural Disasters, *Proceedings of the IISE Conference 2026*, Arlington, TX.
3. Dhungana, M. and **E. Pérez**, "Engineering Health Systems Resilience: A Systematic Literature Review Bridging Disciplines for Robustness, Adaptability, and Transformability, *Proceedings of the IISE Conference 2026*, Arlington, TX.
4. Cravy, L. and **E. Pérez**, "A Synergistic Approach to Workforce Optimization in Airport Screening using Machine Learning and Discrete-Event Simulation" *Proceedings of the 2025 Winter Simulation Conference*, Seattle, WA.
5. Cravy, L. and **E. Pérez**, "Combining Machine Learning and Discrete-Event Simulation for Optimized Workforce Planning in Airport Screening Facilities", *Proceedings of the IISE Conference 2025*, Atlanta, GA.
6. Young, J.J., E.M. Catron, B. Haupt, and **E. Pérez**, "Improving Operational Efficiency for Meals on Wheels Central Texas: A Process Optimization Initiative", *Proceedings of the IISE Conference 2025*, Atlanta, GA.
7. Iqbal Farabi, Y. and **E. Pérez**, "Optimizing Last-Mile Delivery for Nonprofits: A Deterministic VRPTW Model with Multi-Driver Allocation", *Proceedings of the IISE Conference 2025*, Atlanta, GA.
8. Farzana, F. and **E. Pérez**, "An Agent-based Model to Assess Interventions for Continuous Care of Cardiovascular Diseases after Natural Disasters" *Proceedings of the 2024 Winter Simulation Conference*, Orlando, FL.
9. Zertuche, D., D. Martinez, and **E. Pérez**, "A Simulation Based Metaheuristic for Workforce Allocation in Airport Screening Facilities", *Proceedings of the IISE Conference 2024*, Montreal.
10. Martinez, D., D. Zertuche, and **E. Pérez**, "A Simulation Based Strategy for Dynamic Workforce Allocation and Checkpoint Configuration in Airport Screening Facilities", *Proceedings of the IISE Conference 2023*, New Orleans, LA.
11. Saha, S., A. Sharotry, F. A. Mendez Mediavilla, J. Jimenez and **E. Pérez**, "Productivity and Reliability of People with Disability: A Literature Review", *Proceedings of the IISE Conference 2023*, New Orleans, LA.
12. Kothamasu, M., **E. Pérez**, and F.A. Méndez Mediavilla, "Modeling and Simulation of Food Bank Disaster Relief Operations" *Proceedings of the 2022 Winter Simulation Conference*, virtual, pp. 1-11.
13. Streber, H., Streber, K., Van, M., Jimenez-Rivera, A., and **E. Pérez**, "Planning the Trauma Hospital Network Expansion to Increase Access in Rural Communities" *Proceedings of the IISE Conference 2022*, Seattle, WA.
14. **E. Pérez**, Taunton, L., and J.A. Sefair, "A Simulation Based Optimization Approach to Improve the Allocation of Airport Security Screening Resources in Airport Terminal Checkpoints", *Proceedings of the 2021 Winter Simulation Conference*, virtual, pp. 1-11.
15. Kothamasu, M., **E. Pérez**, and F.A. Méndez Mediavilla, "A Stochastic Programming Model for Food Bank Disaster Relief Operations considering Transportation Capacity Limitations" *Proceedings of the IISE Conference 2021*, virtual.
16. Sajan Varghese, M., **E. Pérez**, and *A.L. Schwarz, "A Systems Engineering Approach to Designing a Mobile Assessment Clinic for Patients in Need of Assistive Technology", *Proceedings of the IISE Conference 2019*, Orlando, FL.
17. Sajan Varghese, M., **E. Pérez**, and *A.L. Schwarz, "A Decision Support Framework for Augmentative and Alternative Communication Device Selection", *Proceedings of the IISE Conference 2019*, Orlando, FL.
18. **E. Pérez**, "Integrating Mathematical Optimization in DEVS for Nuclear Medicine Patient and Resource Scheduling", *Proceedings of the 2017 Winter Simulation Conference*, Las Vegas, NV.
19. Reese, H., V. Anandhan, **E. Pérez**, and C. Novoa, "Improving Patient Waiting Time at a Pure Walk-In Clinic", *Proceedings of the 2017 Winter Simulation Conference*, Las Vegas, NV.
20. Dzubay, D.P. and **E. Pérez**, "The Impact of System Factors on Patient Perceptions of Quality of Care", *Proceedings of the 2016 Winter Simulation Conference*, Washington, DC.
21. Walker, D., E. Shanks, D. Montoya, C. Weiman, **E. Pérez**, and *L. DePagter, "Towards a Simulation based Methodology for Scheduling Patient and Providers at Outpatient Clinics", *Proceedings of the 2015 Winter Simulation Conference*, Huntington Beach, CA.

22. Sowle, T., N. Gardini, F. Vazquez Arroyo, **E. Pérez**, J.J. Jimenez, and *L. DePagter, "A Simulation-IP based tool for Patient Admission Services in a Multi-Specialty Outpatient Clinic", *Proceedings of the 2014 Winter Simulation Conference*, Savannah, GA.
23. Huggins, A., D. Claudio, and **E. Pérez**, "Improving Resource Utilization in a Cancer Clinic: An Optimization Model", *Proceedings of the ISERC Conference 2014*, Montreal.
24. Mocarzel, B., Uyan, B., Shelton, D., **E. Pérez**, J.J. Jimenez, and *L. DePagter, "Modeling and Simulation of Patient Admission Services in a Multi-Specialty Outpatient Clinic", *Proceedings of the 2013 Winter Simulation Conference*, Washington, DC.
25. Barry, J., J. Medellin, J. Piechota, M. Harris, T. Jin, and **E. Pérez**, "Power Quality and Reliability-Based Optimization for Distributed Renewable Energy Systems", *Proceeding of the ISERC Conference 2013*, San Juan, PR.
26. **E. Pérez**, L. Ntaimo, and Y. Ding, "Simulation of Wind Farm Operations and Maintenance", *Proceedings of the ASME Turbo Expo 2013*, San Antonio, TX.
27. **E. Pérez**, L. Ntaimo, E. Byon, and Y. Ding, "A Stochastic DEVS Wind Turbine Component Model for Wind Farm Simulation", *Symposium on Theory of Modeling and Simulation (DEVS 2010)*, Orlando, FL.

Conference Presentations (*underlined = Pérez's student*)

1. Iqbal Farabi, Y. and **E. Pérez**, "Stochastic Vehicle Routing and Resource Allocation for Nonprofits under Uncertain Volunteer Availability, *Proceedings of the IISE Conference 2026*, Arlington, TX, May 16-19.
2. Rahman, I., A. Dutta, and **E. Pérez**, "Machine LearningBased Surrogate Modeling for Cardiovascular Disease Forecasting During Natural Disasters, *Proceedings of the IISE Conference 2026*, Arlington, TX, May 16-19.
3. Dhungana, M. and **E. Pérez**, "Engineering Health Systems Resilience: A Systematic Literature Review Bridging Disciplines for Robustness, Adaptability, and Transformability, *Proceedings of the IISE Conference 2026*, Arlington, TX, May 16-19.
4. [poster] **Pérez, E.**, (2026) A Digital Twin Framework for Disaster Health Response: Optimizing Mobile Pharmacy Deployment for Cardiovascular Care, TXST Healthcare Showcase, San Marcos TX, April 10.
5. [poster] **Pérez, E.**, (2026) A Digital Twin Framework for Disaster Health Response: Optimizing Mobile Pharmacy Deployment for Cardiovascular Care, Texas Digital Twin Symposium, College Station TX, April 17.
6. Cravy, L. and **E. Pérez**, (2025) "A Synergistic Approach to Workforce Optimization in Airport Screening using Machine Learning and Discrete-Event Simulation" *Winter Simulation Conference*, Seattle WA, Dec 7-10.
7. Cravy, L. and **E. Pérez**, (2025) "Combining Machine Learning and Discrete-Event Simulation for Optimized Workforce Planning in Airport Screening Facilities", *IISE Conference 2025*, Atlanta GA, May 31-Jun 3.
8. Young, J.J., E.M. Catron, B. Haupt, and **E. Pérez**, (2025) "Improving Operational Efficiency for Meals on Wheels Central Texas: A Process Optimization Initiative", *IISE Conference 2025*, Atlanta GA, May 31-Jun 3.
9. Iqbal Farabi, Y. and **E. Pérez**, (2025) "Optimizing Last-Mile Delivery for Nonprofits: A Deterministic VRPTW Model with Multi-Driver Allocation", *IISE Conference 2025*, Atlanta GA, May 31-Jun 3.
10. [poster] Cravy, L. and **E. Pérez**, (2025) "Combining Machine Learning and Discrete-Event Simulation for Optimized Workforce Planning in Airport Screening Facilities", *TXST Data and AI Day*, San Marcos TX, Apr 16.
11. [poster] **Pérez, E.** (2025) "An Agent-based Model to Assess Interventions for Continuous Care of Cardiovascular Diseases after Natural Disasters", *Texas State University Healthcare Showcase 2025*, San Marcos TX, Apr 4.
12. [poster] Iqbal Farabi, Y. and **E. Pérez**, (2025) "Vehicle Routing and Resource Allocation in Nonprofit Settings with Uncertain Volunteer Driver Availability", *Texas State DOE-EM Symposium*, San Marcos TX, February 28.
13. Farzana, F. and **Pérez, E.** (2024) "An Agent-based Model to Assess Interventions for Continuous Care of Cardiovascular Diseases after Natural Disasters", *Winter Simulation Conference*, Orlando FL, Dec 15-18.
14. Zertuche, D., D. Martinez, and **E. Pérez**, (2024) "A Simulation Based Metaheuristic for Workforce Allocation in Airport Screening Facilities", *IISE Conference*, Montreal, May 18-21.
15. Farzana, F. and **E. Pérez**, (2024) "An agent-based simulation model to plan for continuity of care for chronic diseases after natural disasters", *IISE Conference*, Montreal, May 18-21.
16. Zertuche, D., D. Martinez, and **E. Pérez**, (2023) "A Simulation Based Strategy for Dynamic Workforce Allocation and Checkpoint Configuration in Airport Screening Facilities", *IISE Conference*, New Orleans LA, May 20-23.
17. Saha, S., A. Sharotry, F. A. Mendez Mediavilla, J. Jimenez and **E. Pérez**, (2023) "Productivity and Reliability of People with Disability: A Literature Review", *IISE Conference*, New Orleans LA, May 20-23.
18. Kothamasu, M., **E. Pérez**, and F.A. Mendez Mediavilla (2022) "Modeling and Simulation of Food Bank Disaster Relief Operations", *Winter Simulation Conference*, virtual, Dec 11-14.
19. Joshi, A., **E. Pérez**, and F. Méndez Mediavilla, (2022) "Trauma care center network planning for COVID-19: A two-stage stochastic programming framework", *INFORMS Annual Conference*, Indianapolis IN, Oct 16-19.

20. Streber, H., Streber, K., Van, M., Jimenez-Rivera, A., and **E. Pérez**, (2022) "Planning the Trauma Hospital Network Expansion to Increase Access in Rural Communities", *IIE Conference*, Seattle WA, May 20-23.
21. Subramanian, P., **Pérez, E.**, and F.A. Méndez Mediavilla (2022) "Modeling and Optimization of Security Screening Resources in Airport Terminal Checkpoints", *Conference on Statistical Practice*, virtual, Feb 1-3.
22. **Pérez, E.**, F.A. Méndez Mediavilla, S. Greer, M. Van, K. Skidmore, and K. Williams, (2022) "A Data Analysis Study to Determine Factors Associated with COVID-19 Cases Spread in Texas", *Healthcare Systems Process Improvement Conference*, Orlando FL, Jan 19-21.
23. **Pérez, E.**, Y. Li, and J. Pagán, (2021) "A Decision-Making Model to Optimize the Impact of Community-Based Health Programs," *INFORMS Annual Conference*, Virtual, Oct 24-27.
24. **Pérez, E.** and F.A. Méndez Mediavilla, (2021) "Factors Associated with COVID-19 Cases Spread in Texas," *INFORMS Healthcare Conference*, Virtual, Jul 23-25.
25. Kothamasu, M., **E. Pérez**, and F.A. Mendez Mediavilla, (2021) "A Deep Learning Time-Series Forecasting of Disaster Relief Donations for Food Banks," *IISE Annual Conference*, Virtual, May 23-25.
26. Kothamasu, M., **E. Pérez**, and F.A. Mendez Mediavilla, (2021) "A Stochastic Programming Model for Food Bank Disaster Relief Operations," *IIE Annual Conference*, Virtual, May 23-25.
27. **Pérez, E.** and J. Pagán, (2020) "A Location Model to Improve Access to Healthy Food Markets," *INFORMS Annual Conference*, Virtual, Nov 7-13.
28. **Pérez, E.** and L. Taunton, (2020) "A Simulation-Optimization Approach to Improve the Allocation of Airport Security Screening Resources in Airport Terminal Checkpoints", *INFORMS Advances in Data Science & OR Virtual Conference*, Sep 21-23.
29. Joshi, A., **E. Pérez**, F. Méndez, and C. Novoa, (2019) "The Stochastic Trauma System Configuration Problem", *Texas State University International Research Conference*, San Marcos TX, Nov 5-7.
30. Sajan Varghese, M., **E. Pérez**, and *A.L. Schwarz, "A Systems Engineering Approach to Designing a Mobile Assessment Clinic for Patients in Need of Assistive Technology", *IISE Annual Conference*, Orlando FL, May 18-21.
31. Sajan Varghese, M., **E. Pérez**, and A.L. Schwarz, (2019) "A Decision Support Framework for Augmentative and Alternative Communication Device Selection", *IISE Annual Conference*, Orlando FL, May 18-21.
32. Ochoa, E., **E. Pérez**, and J. Jimenez, (2018) "A Minimal Technology Routing System for Food Banks Mobile Food Pantry Programs", *INFORMS Annual Conference*, Phoenix, AZ, Nov 4-7.
33. Sajan Varghese, M., **E. Pérez**, and A.L. Schwarz, (2018) "An Optimization-Based Algorithm for Assistive Technology Equipment Assignment", *IIE Annual Conference*, Orlando FL, May 19-22.
34. Sajan Varghese, M., **E. Pérez**, and A.L. Schwarz, (2017) "A Decision Support System for Augmentative and Alternative Communication Device Selection", *INFORMS Annual Conference*, Phoenix, AZ, Nov. 4-7.
35. Reese, H., V. Anandhan, **E. Pérez**, and C. Novoa, (2017) "Minimizing Patient Waiting Time at a Pure Walk-In Clinic", *Winter Simulation Conference*, Las Vegas, NV, Dec. 3-6.
36. **Pérez, E.**, (2017) "Integrating Mathematical Optimization in DEVS for Nuclear Medicine Patient and Resource Scheduling", *Winter Simulation Conference*, Las Vegas, NV, Dec. 3-6.
37. Anandhan, V. and **E. Pérez**, (2017) "Minimizing Patient Waiting Time at a Pure Walk-in Clinic", *INFORMS Annual Conference*, Houston, TX, Oct. 22-25.
38. **Pérez, E.**, D.P. Dzubay, and A. Stahl, (2017) "Scheduling Hospitalists Considering Patient's Perception of Quality of Care", *IIE Annual Conference*, Pittsburg PA, May 20-23.
39. **Pérez, E.**, D.P. Dzubay, and A. Stahl, (2017) "A Data Driven Approach for Assessing and Improving Patient Experience of Care", *INFORMS Computing Society Conference - Healthcare Analytics*, Austin, TX, Jan 15-17.
40. Dzubay, D.P. and **E. Pérez**, (2016) "The Impact of System Factors on Patient Perceptions of Quality of Care", *Winter Simulation Conference*, Washington, DC, Dec 11-14.
41. **Pérez, E.**, (2016) "A Simulation Optimization Framework for Scheduling Preventive Maintenance in Wind Energy Systems," *INFORMS Annual Conference*, Nashville, TN, Nov 13-16.
42. **Pérez, E.**, D.P. Dzubay, and A. Stahl, (2016) "Association Between Staff Behavior And Patient Experience Of Care In Acute-care Hospitals", *INFORMS Annual Conference*, Nashville, TN, Nov 13-16.
43. Dzubay, D.P. and **E. Pérez**, (2016) "The Impact of System Factors on Patient Perception of Quality of Care," *Undergraduate Research Conference and Honors Thesis Forum*, San Marcos, TX, Apr 16.
44. **Pérez, E.**, (2016) "Data-Driven Operation and Maintenance of Wind Energy Systems under Uncertainty", *Annual Review of the Air Force Office of Scientific Research (AFOSR) Dynamic Data Driven Applications Systems (DDDAS) Program*, Arlington VA, Jan 27-29.

45. Walker, D., E. Shanks, D. Montoya, C. Weiman, **E. Pérez**, and L. DePagter, (2015) "Towards a Simulation based Methodology for Scheduling Patient and Providers at Outpatient Clinics", *Winter Simulation Conference*, Huntington Beach, CA, Dec 6-9.

46. **Pérez, E.**, B. Uyan, S.H. Fenton, and R.E. Rohde, (2015) "Analyzing CAUTI Prevention Strategies: A Discrete-Event Simulation Study", *IIE Annual Conference*, Nashville TN, May 30-Jun 2.

47. Dzubay, D. and **E. Pérez**, (2015) "Improving Patient Experience of Care in Acute Care Hospitals," *IIE Annual Conference*, Nashville TN, May 30-Jun 2.

48. Sowle, T., N. Gardini, F. Vazquez Arroyo, **E. Pérez**, J.J. Jimenez, and L. DePagter, (2014) "A Simulation-IP based tool for Patient Admission Services in a Multi-Specialty Outpatient Clinic", *Winter Simulation Conference*, Savannah, GA, Dec 7-10.

49. **Pérez, E.**, B. Uyan, S.H. Fenton, and R.E. Rodhe, (2014) "Analyzing CAUTI Prevention Strategies: A Discrete-Event Simulation Study", *INFORMS Annual Conference*, San Francisco CA, Nov 8-12.

50. Huggins, A., D. Claudio, and **E. Pérez**, (2014) "Improving Resource Utilization in a Cancer Clinic: An Optimization Model", *IIE Annual Conference*, Montreal Canada, May 30-Jun 2.

51. Mocarzel, B., B. Uyan, D. Shelton, **E. Pérez**, J.J. Jimenez, and *L. DePagter, (2013) "Modeling and Simulation of Patient Admission Services in a Multi-Specialty Outpatient Clinic", *Winter Simulation Conference*, Washington D.C., Dec. 8-11.

52. **Pérez, E.**, (2013) "Appointment Scheduling for a Server with Sequence-Dependent Deteriorating Effects", *INFORMS Annual Conference*, Minneapolis MN, Oct 6-9.

53. **Pérez, E.**, L. Ntaimo, and C.O. Malavé, (2013) "Stochastic Online Appointment Scheduling of Multi-Step Sequential Procedures in Nuclear Medicine", *INFORMS Healthcare*, Chicago IL, June 23-26.

54. **Pérez, E.**, L. Ntaimo, and Y. Ding, (2013) "Simulation of Wind Farm Operations and Maintenance", *ASME Turbo Expo*, San Antonio TX, Jun. 1-7.

55. Barry, J., J. Medellin, J. Piechota, M. Harris, T. Jin, and **E. Pérez**, (2013) "Power Quality and Reliability-Based Optimization for Distributed Renewable Energy Systems", *IIE Annual Conference*, San Juan PR, May 18-22.

56. **Pérez, E.** and A. J. Ruiz-Torres, (2013) "Scheduling Job Start Times for a Server with Sequence-Dependent Deteriorating Effects", *IIE Annual Conference*, San Juan PR, May 18-22.

57. **Pérez, E.**, L. Ntaimo, and C.O. Malavé, (2012) "Integrating Mathematical Optimization in DEVS for Nuclear Medicine Patient and Resource Scheduling", *INFORMS Annual Conference*, Phoenix AZ, Oct 14-17.

58. Alvarado, M., T. Cotton, L. Ntaimo, and **E. Pérez**, (2012) "Modeling and Simulation of an Oncology Clinic using DEVS", *INFORMS Annual Conference*, Phoenix AZ, Oct 14-17.

59. **Pérez, E.**, Y. Wang, L. Ntaimo, and Y. Ding, (2012) "Modeling and Simulation of Wind Farm Operations and Maintenance," *IIE Annual Conference*, Orlando FL, May 19-23.

60. Cotton, T., M. McGaha, L. Ntaimo, and **E. Pérez**, (2012) "Mean-Risk Stochastic Programming Approach to Chemotherapy Patient & Resource Scheduling", *IIE Annual Conference*, Orlando FL, May 19-23.

61. Polansky, R., Y.M. Ko, Gallego J, **E. Pérez**, L. Ntaimo, and N. Gautam, (2011) "Unified Approach to the Energy Efficiency Problem in Data Centers", *INFORMS Annual Conference*, Charlotte, NC, Nov 13-16.

62. **Pérez, E.**, L. Ntaimo, E. Byon, and Y. Ding, (2011) "Modeling and Simulation of Wind Energy Systems Operations in DEVS", *INFORMS Annual Conference*, Charlotte, NC, Nov 13-16.

63. McGaha, M, T. Cotton, L. Ntaimo, and **E. Pérez**, (2011) "A Stochastic Integer Programming Approach to Chemotherapy Scheduling," *INFORMS Annual Conference*, Charlotte, NC, Nov 13-16.

64. Cotton, T., M. McGaha, L. Ntaimo, and **E. Pérez**, (2011) "Scheduling Oncology Patients using a Mean-Risk Stochastic Programming Approach," *INFORMS Annual Conference*, Charlotte, NC, Nov 13-16.

65. Byon, E., **Pérez, E.**, Y. Ding, and L. Ntaimo, (2011) "Simulation and Optimization of Wind Energy Systems under Uncertainty", *Energy Forum - Energy Security & Sustainability*, College Station, TX, Feb 1-2.

66. Gallego J, Y.M. Ko, R. Polansky, **Pérez, E.**, L. Ntaimo, and N. Gautam, (2011) "Resource Allocation in Data Centers for Energy Efficiency", *NSF CMMI Research and Innovation Conference*, Atlanta, GA, Jan 4-7.

67. **Pérez, E.**, L. Ntaimo, and C. Malave, (2010) "Stochastic Online Scheduling of Multi-Step Sequential Medical Procedures in Nuclear Medicine", *INFORMS Annual Conference*, Austin, TX, Nov. 7-10.

68. **Pérez, E.**, L. Ntaimo, E. Byon, and Y. Ding, (2010) "A Stochastic DEVS Wind Turbine Component Model for Wind Farm Simulation", *Spring Simulation Multi-Conference*, Orlando, FL, Apr. 11-15.

69. **Pérez, E.** and L. Ntaimo, (2010) "Improving Patient Service Management in Hospital Nuclear Medicine Departments", *Center for Health Organization Transformation 2010 Semi-Annual Winter Meeting*, Houston, TX, Feb 25-26.

70. **Pérez, E.**, Byon, E., Y. Ding, and L. Ntaimo, (2009) "Modeling and Simulation of Wind Farm Maintenance Operations in DEVS", *INFORMS Annual Conference*, San Diego, CA, Oct 11-14.
71. **Pérez, E.**, L. Ntaimo, and C. Malavé, (2009) "Nuclear Medicine Patient and Resource Scheduling via Stochastic Integer Programming", *INFORMS Annual Conference*, San Diego, CA, Oct 11-14.
72. **Pérez, E.**, L. Ntaimo, and C. Malavé, (2009) "Scheduling of Multi-step Medical Diagnosis Procedures in Healthcare Nuclear Medicine Departments (NMDs)", *POMS Annual Conference*, Orlando, FL, May 1-4.
73. **Pérez, E.** and L. Ntaimo, (2008) "Patient Scheduling in Healthcare Nuclear Medicine Departments (NMDs)", *INFORMS Annual Conference*, Washington D.C., Oct 13-15.
74. **Pérez, E.** and L. Ntaimo, (2008) "Managing Patients in Healthcare Nuclear Medicine Departments (NMDs)", *IIE Annual Conference*, Vancouver B.C., May 17-21.

Invited Presentations and Seminars

1. **Pérez, E.**, "An Agent-based Model to Assess Interventions for Continuous Care of Cardiovascular Diseases after Natural Disasters", Texas State Health+Resilience Research Network, San Marcos, TX, Feb. 26, 2025.
2. **Pérez, E.**, "A Simulation Based Strategy for Dynamic Workforce Allocation and Checkpoint Configuration in Airport Screening Facilities", Department of Industrial Engineering, Rochester Institute of Technology, Feb. 2, 2024.
3. **Pérez, E.**, "A simulation-driven online scheduling algorithm for the maintenance and operation of wind farm systems", Department of Industrial Engineering, Colorado School of Mines, Nov. 30, 2023.
4. **Pérez, E.**, "A Data Analysis Study to Determine Factors Associated with COVID-19 Cases Spread in Texas", Texas State University, Mar. 7, 2023.
5. **Pérez, E.**, "Forecasting and Stochastic Programming Models to Address Uncertainty in the Trauma System Configuration Problem", Department of Industrial Engineering, University of Houston, Apr. 23, 2021.
6. **Pérez, E.**, "Forecasting and Stochastic Programming Models to Address Uncertainty in the Trauma System Configuration Problem", Center for Healthcare Engineering & Patient Safety, University of Michigan, Dec. 7, 2020.
7. **Pérez, E.**, "Identification and Analysis of Key Dynamics Required for Sustainable Planning of the Texas Trauma System", Texas Department of State Health Services, Oct. 15, 2020.
8. **Pérez, E.**, "A Simulation-Optimization Approach to Improve the Allocation of Airport Security Screening Resources in Airport Terminal Checkpoints", INFORMS Advances in Data Science & OR Virtual Conference, Galileo University-Guatemala, Sep 21, 2020.
9. **Pérez, E.**, "A Simulation-Optimization Approach to Improve the Allocation of Airport Security Screening Resources in Airport Terminal Checkpoints", DHS Center for Accelerating Operational Efficiency - Arizona State University, Aug. 14, 2020.
10. **Pérez, E.**, "Opportunities and Challenges in Patient Service Customization", INFORMS Annual Conference, Phoenix, AZ, Nov 4-7, 2018.
11. **Pérez, E.**, "Opportunities and Challenges in Patient Service Customization", 2017 IEEE Innovation Summit in Health and Technology, Austin, TX, Sept. 8, 2017.
12. **Pérez, E.**, "Improving Patient Experience of Care in Acute-Care Hospitals", Industrial and Systems Engineering, Texas A&M University, Apr. 29, 2016.
13. **Pérez, E.**, "Stochastic Online Scheduling for Multi-Step Medical Procedures", Industrial and Manufacturing Engineering, California State Polytechnic, Mar. 28, 2012.
14. **Pérez, E.**, "Stochastic Online Scheduling for Multi-Step Medical Procedures", U.S. Veterans Hospital-Houston, Feb. 23, 2012.
15. **Pérez, E.**, "Stochastic Online Scheduling for Multi-Step Medical Procedures", Dipartimento di Informatica, Sistemistica e Comunicazione, Universita degli Studi di Milano-Italy, Jan. 23, 2012.

Teaching and Mentorship Experience

M.S. Theses Supervised

1. Gerardo Treviño, "Optimizing Resource Allocation for Cardiovascular Disease in Natural Disasters: A Hybrid System Dynamics and Agent-Based Simulation Framework", expected: December 2026.
2. Imtiajur Rahman, "Leveraging Machine Learning Surrogates and Stochastic optimization to Enhance Disaster-Responsive Pharmaceutical Supply Chains", expected: July 2026.
3. Md Yeasir Iqbal, "Vehicle Routing and Resource Allocation in Nonprofit Settings with Uncertain Volunteer Driver Availability", July 2025. (*Currently: Lecturer at University of Liberal Arts Bangladesh*)
4. Faria Farzana, "Simulation and Optimization Models for Planning Intervention to Care for Cardiovascular Disease Patients after Natural Disasters", July 2024. (*Currently: PhD student at North Dakota State University*)

5. Sabhasachi Saha, "A Data-Driven Framework for Planning the Expansion of the Trauma Healthcare Network in Texas", May 2023. (*Currently: PhD student at Clemson University*)
6. Palaniappan Subramanian, "Modeling and Optimization of Security Screening Resources in Airport Terminal Checkpoints", May 2023.
7. Monica Kothamasu, "A Simulation-based Data-driven Analysis for Improving Collaboration Between Food Banks Facilities Before and After Natural Disasters", May 2021.
8. Alakshendra Joshi, "Forecasting and Stochastic Programming Models to Address Uncertainty in the Trauma System Configuration Problem", December 2020.
9. Yash V. Marthak, "Characterizing and Planning for Key Logistic Obstacles in Food Banks Operations after Hurricane Events", May 2020.
10. Mahima S. Varghese, "Improving Access to Medical Care for Patients in Need of Augmentative and Alternative Communication using Systems Engineering and Optimization Models", December 2018. (*Recipient: Texas State Outstanding Graduate Student Award 2017-2018*)
11. Vivekanand Anandhan, "A Data-driven Approach for Reducing Patient Waiting Times in Walk-in Clinics", June 2017.

Undergraduate Research Mentorship

1. **Lauren Cravy** (2024-2025) · Topic: Resource allocation applied to airport security. Awards: Selected to participate in DHS SRT program.
2. **Diego Zertuche** (2022-2024) · Topic: Resource allocation applied to airport security. Awards: Industrial Engineering outstanding student of the year, selected to participate in DHS SRT program.
3. **Emma Catron, Jestin Young, Brian Haupt** (2024) · Topic: Resource allocation applied to humanitarian logistics. Awards: 2024 Best IE Senior Design Project.
4. **Holly and Kayla Streber** (2021-2022) · Topic: Resource allocation applied to healthcare. Awards: Industrial Engineering outstanding students of the year, IISE OR Division Undergraduate Student Research Dissemination Competition Winner, 2022 Best IE Senior Design Project.

Courses Taught and Teaching Evaluations

Standard load: 2 courses per semester. Evaluations scale is out of 5.0.

Course Name	**Level**	**Terms and Evaluation**
IE 3310 Engineering Management	Undergraduate	S14 (4.6/5); S15 (4.6/5)
IE 3320 Engineering Statistics	Undergraduate	F12 (4.6/5); F13 (4.5/5); F14 (4.5/5) F16 (4.0/5); F17 (4.1/5)
IE 3340 Operations Research	Undergraduate	S13 (4.7/5); S14 (4.7/5); S15 (4.7/5) F15 (4.7/5), F16 (4.7/5), F17 (4.9/5) F18 (5/5); F20 (4.7/5); F21 (4.75/5)
IE 4355 Facilities Planning	Undergraduate	F14 (4/5); Su15 (4.5/5); Su18 (4.4/5) F20 (4.4/5); S21 (4.4/5); F21 (4.1/5) S22 (4.5/5); S24 (4.3/5); F24 (3.73/5)
IE 4381 Intro to Systems Eng.	Undergraduate	S18 (4.2/5); F18 (3.5/5); S20 (4.4/5) S21 (4.8/5); F22 (5/5); F23 (4.5/5) S24 (4.3/5); F24 (4.5/5);
IE 5320 Modeling and Analysis of Mfg Systems	Graduate	S16 (4.7/5); S17 (4.7/5); S18 (4.7/5) S19 (5/5); S20 (5/5); S22 (4.9/5) S23 (5/5); S24 (4.9/5); S25 (4.9/5)
IE 5397 Systems Thinking and Analysis	Graduate	S17 (4.4/5); S19 (4.4/5); S20 (5/5) S21 (5/5); F22 (5/5); F23 (5/5) F24 (5/5)

Professional Service

Leadership and Advisory Positions

- Member, Food System Data and Research Advisory Group – Central Texas Food Bank, Austin TX (Jun 2025 – Present)

- President, Minority Issues Forum (MIF) – INFORMS (Jan 2022 – Dec 2023)
- Vice President / President Elect, Minority Issues Forum (MIF) – INFORMS (Jan 2020 – Dec 2021)
- Vice President of Programs, Minority Issues Forum (MIF) – INFORMS (Oct 2017 – Oct 2019)
- Committee Member, INFORMS Undergraduate OR Prize Committee (Jan 2019 – Jan 2021)

Conference Track & Session Organization

- **Track Chair:** Minorities Issues Track (INFORMS 2018, 2019); Healthcare Systems Track (IISE 2018, 2019); Future of Simulation Track (WSC 2017)
- **Program Committee:** Healthcare System Track (IISE 2017, 2018, 2019); Health Applications Track (WSC 2014, 2015, 2016); Energy System Track (IISE 2015, 2016)
- **Session Chair:** Resource Planning II (IISE 2018); Improving Care Delivery (WSC 2016); Hospital Acquired Infections (INFORMS 2014, 2015, 2016); Healthcare Modeling (IISE 2015); Healthcare Systems Operations (INFORMS 2013); Remote Care Clinics (WSC 2013); Healthcare Modeling (INFORMS 2012); Stochastic Programming (INFORMS 2010)

Editorial Board & Refereeing Activities

- **Editorial Positions:** *INFORMS Journal on Applied Analytics* (Associate Editor, 2023 – Present)
- **Grant Proposal Referee:** National Science Foundation (NSF) Center Review Panelist – PIPP Phase II (2024)
- **Technical Paper Referee:** *Operations Research* (2016–); *IISE Transactions* (2015–); *Annals of Operations Research* (2016–); *Expert Systems with Applications* (2016–); *Journal of Global Optimization* (2014–); *Winter Simulation Conference* (2013–); *Omega* (2012–); *European Journal of Operational Research* (2012–); *Health Care Management Science* (2011–); *IIE Transactions on Healthcare and Systems Engineering* (2011–); *SIMULATION* (2019–); *Wind Energy* (2020–); *Journal of Medical Systems* (2021–); *IEEE Transactions on Automation Science and Engineering* (2021–)

University Service

University-Wide Level

- Panelist, Texas State Workshop "How to get unsolicited funding from the National Science Foundation (NSF)?" (Spring 2016)
- Speaker, New TXST Faculty Orientation – Topic: "How to build a research enterprise?" (2020)
- Member, Texas State Data Science Center Creation Committee (Fall 2022 – Fall 2023)
- Member, Input to Common Experience Proposals Committee (Fall 2022 – Fall 2024)
- Track Chair, Enabling Technologies and Processes track, TXST Health Scholar Showcase (February 10, 2017)
- Graduate Marshal, Fall 2018 Commencement Ceremony
- Reviewer, Texas State Multi-Disciplinary Internal Research Grant (MIRG) Program (Spring 2015)

College and Departmental Level

- **Faculty Advisor:** Texas State Student Chapter of the Institute of Industrial and Systems Engineers (IISE) (Spring 2022 – Spring 2025)
- **Founder and Director:** Integrated Modeling and Optimization for Service Systems (IMOSS) Research Laboratory (Established Fall 2012)
- **Departmental Committees:** ISOE Personnel Committee (Fall 2018 – Present); ISOE Research Committee (Fall 2020 – Spring 2025); ISOE-ITOC Curriculum Committee representing Industrial Engineering (2018–2019, 2020–Present); Member, Graduate College Outstanding Master's Thesis Award Committee (Fall 2022 – Present)
- **Curriculum Architect:** Formulated graduate course structures for *IE 5397 Systems Thinking and Analysis* and *IE 5380 Healthcare Systems Engineering*
- **Senior Design Supervisor:** Directed Ingram School of Engineering Capstone Projects across Fall 2012, Spring 2013, Spring 2014, Spring 2015, Spring 2016, Spring 2018, Spring 2021, Fall 2021, Spring 2023, Spring 2024, and Fall 2025 cohorts
- **Student Recruitment & Retention:** Representative at Bobcat Day recruitment events (2013 – 2018); Supervised and mentored minority undergraduate researchers via the NSF Louis Stokes Alliances for Minority Participation (LSAMP) program
- **Facilities & Accreditation Planning:** Coordinated infrastructure design metrics for the new engineering facility (2015 – 2016); Coordinated ongoing continuous programmatic evaluation profiles for ABET Accreditation operations (Fall 2012 – Present)