

ERHAN KUTANOGLU

Graduate Program in Operations Research and Industrial Engineering
Walker Department of Mechanical Engineering, The University of Texas at Austin
204 E Dean Keeton St, Austin, TX 78712
Phone: (512) 232-7194
E-mail: erhank@mail.utexas.edu, Web: sites.utexas.edu/erhan

ACADEMIC POSITIONS

Associate Professor September 2008 – Present (on leave September 2013 – August 2015)
Department of Mechanical Engineering

- As a tenured faculty member in the Operations Research and Industrial Engineering Graduate Program, develop and teach courses, develop research programs, advise students, and serve on departmental and university committees

Visiting Professor and Vice Rector September 2013 – August 2015 (while on leave)
Abdullah Gul University, Turkey

- As a member of founding administrators of the new university, responsible from student affairs and education, start and supervise an active-learning based curriculum development across three colleges, and 8 departments, start a new teaching and learning center, oversee the dean of students (career and professional development center, counseling office, student clubs), develop strategies for and oversee operations of registrar, library and student dormitories, and start and direct the international office and oversee international admissions, and chair all the related committees.

Assistant Professor August 2002 – August 2008
Department of Mechanical Engineering

Assistant Professor August 1999 – August 2002
Department of Industrial Engineering, University of Arkansas, Fayetteville, AR

EDUCATION

Ph.D., Industrial Engineering February 1999
Lehigh University, Bethlehem, PA

- *Concentration*: Operations research, manufacturing logistics and scheduling, mathematical modeling, distributed algorithms.
- *Dissertation*: “Distributed Resource Scheduling: Optimization Models, Equilibrium Conditions, and Incentive Compatible Mechanisms” (*Advisor*: S. David Wu)

M.S., Industrial Engineering January 1995
Bilkent University, Ankara, Turkey

- *Thesis*: “Job Shop Scheduling under Dynamic and Stochastic Manufacturing Environment” (*Advisor*: Ihsan Sabuncuoglu).

B.S., Industrial Engineering June 1992
Bilkent University, Ankara, Turkey

RESEARCH INTERESTS

- *Disaster/Hurricane Resilience, Mitigation, and Recovery Logistics and Optimization*
- *Manufacturing, Service and Maintenance Operations and Logistics*
- *Supply Chain, Transportation, and Inventory Management*
- *Integer Programming and Large-Scale Optimization*
- *Airline Operations, Service Parts Logistics, and Semiconductor Manufacturing*

AWARDS

- *IBM Faculty Award*, 2019, IBM.
- *NSF CAREER Award*, 2002-2007, NSF.
- *Postdoctoral Reintegration Fellowship Grant*, 2013, The Scientific and Technological Research Council of Turkey (TUBITAK).
- *Visiting Scientists Fellowship*, 2010, The Scientific and Technological Research Council of Turkey (TUBITAK).
- *Summer Research Award*, 2004, The University of Texas at Austin.
- *Selected to the INFORMS Young Researcher Roundtable*, 2005.
- *Graduate Scholarship*, 1995–1999, Department of IMSE, Lehigh University.
- *Graduate Fellowship*, 1992–1995, Department of Industrial Engineering, Bilkent University.
- *Undergraduate Fellowship*, 1987–1992, Department of Industrial Engineering, Bilkent University.

RESEARCH GRANTS**The University of Texas at Austin**

1. "CoPe EAGER: Addressing Human-Centric Decision-Making Challenges from Coastal Hazards via Integrated Geosciences Modeling and Stochastic Optimization," *Sponsor*: NSF, *Collaborators*: IBM, TDEM, NCAR, *Funding*: \$299,932, *Dates*: September 2019 – August 2023 (PI, with J.J. Hasenbein and Z.L. Yang, equal share).
2. "Decision Support for Equitable Adaptation of the Power Grid to Climate Change," *Sponsor*: EPRI - Electric Power Research Institute. *Funding*: \$114,769, *Dates*: January 2024 – December 2024. (PI).
3. "Cybersecurity Manufacturing Innovation Institute (Mapping, Security, and Intelligent Efficiency in the Supply Chain)," *Sponsor*: DOE (via a subaward from UT San Antonio), *Funding (UT Portion)*: \$863,326 (\$231,384 Year 1, \$198,007 Year 2, \$133,935 Year 3, plus \$300,000 in matching funds from the UT System). This grant is extendable for up to 2 additional years, for a total of 5 years. *Dates*: December 2020 - December 2023 (Co-PI, with J. Hasenbein, D. Djurdjanovic, equal share).
4. "Improving Grid Resilience with Optimal Restoration Utilizing Energy Storage," *Sponsor*: Sandia National Labs, *Funding*: \$120,000, *Dates*: October 2021 – May 2024 (PI, with S. Santoso, equal share).
5. "Critical Node Identification, Vulnerability Modeling, and Topology Optimization for the Electric Grid," *Sponsor*: Sandia National Labs, *Funding*: \$162,000, *Dates*: October 2020 – September 2023 (PI, with S. Santoso, equal share).
6. "Uncertainty Quantification for Circular Economies and Supply Chains," *Sponsor*: UT Energy Institute, *Funding*: \$60,000, *Dates*: September 2022 – August 2023 (Co-PI, with M. Baldea, equal share).
7. "Addressing Structural Inequalities in Disaster-induced Power Grid Outages - Phase 2," *Sponsor*: UT IC² Institute, *Funding*: \$70,000, September 2022 - August 2023 (PI, with John Hasenbein).
8. "Addressing Structural Inequalities in Disaster-induced Power Grid Outages - Phase 1," *Sponsor*: UT IC² Institute, *Funding*: \$18,000, 2022 Summer (PI, with John Hasenbein).
9. "Defending the Electricity Infrastructure Against Extreme Weather Events, Now and in the Future," *Sponsor*: UT Energy Institute, *Collaborators*: IBM, NCAR, TDEM, EPRI, ERCOT, *Funding*: \$270,000 (Plus \$10,000 match from the ME department), *Dates*: January 2020 - August 2022 (PI, with S. Santoso, Z.L. Yang, J.J. Hasenbein, and C. King, equal share).

10. "Data-driven Disaster Evacuation of Critical Assets," *Sponsor and Collaborator: IBM Faculty Award, Funding: \$40,000 (with \$10,000 match from the ME department), Dates: June 2019 – August 2020 (PI).*
11. "Hurricane-Resilient Healthcare Infrastructure Modeling with Integrated Flood Prediction and Stochastic Logistics Optimization," *Sponsor: UT Planet Texas 2050, Collaborator: SETRAC, Funding: \$30,000, Dates: September 2019 – August 2020 (PI, with J.J. Hasenbein and Z.L. Yang, equal share).*
12. "Protecting Texas's Power and Road Networks from Hurricanes via Stochastic Optimization," *Sponsor: UT ME Walker Funds Seed Project Support, Funding: \$24,240. Dates: September 2019 – August 2020 (PI).*
13. "Applied Projects in ORIE," *Sponsor: Sabre, Funding: \$60,000. Dates: Spring 2018 – 2023 (PI).*
14. "Applied Projects in ORIE," *Sponsor: Zillow, Funding: \$10,000. Dates: Spring 2019 (PI).*
15. "Applied Project in ORIE," *Sponsor: Affinity Answers, Funding: \$10,000. Dates: Spring 2019 (PI).*
16. "Cloud Computing Resource Allocation and Optimization" (Unrestricted Gift Funding), *Sponsor and Collaborator: Gravitant - IBM, Funding: \$34,600, Dates: January 2016 – August 2016 (PI).*
17. "Supply Chain Optimization and Decision Support for High-Mix Assembly Line Manufacturing," *Sponsor: Advanced Manufacturing Center, Industrial Affiliates Program, Industry Collaborator: Caterpillar, Funding: \$179,000, Dates: January 2012 – December 2013.*
18. "Fab Capacity Management and WIP Target Optimization with Predictive Maintenance Considerations," *Sponsor: Samsung Electronics Co., Industry Collaborator: Samsung Electronics Co., Funding: \$100,000, Dates: January 2013 – May 2014. (Co-PI, with J.J. Hasenbein, equal share)*
19. "Maintenance Logistics and Systems Operations based on the Predictive Condition Information," *Sponsor: NSF Industry University Cooperative Research Center (IUCRC) on Intelligent Maintenance Systems, Industry Collaborator: Canrig Drilling Technology, Funding: \$40,000, Dates: January 2013 – December 2013 (Co-PI, with D. Djurdjanovic).*
20. "CAREER: Analysis of Multi-dimensional Coordination Problems in Service Parts Logistics Systems" *Sponsor: NSF, Industry Collaborator: IBM, Funding: \$375,000, Dates: August 2002 – July 2007 (PI).*
21. "Research Experience for Undergraduates (REU) Supplement for the NSF CAREER Grant," *Sponsor: NSF, Funding: \$12,000, Dates: August 2004 – July 2007 (PI).*
22. "Semiconductor: Fab-wide Control and Disruption Management in High Volume Semiconductor Manufacturing" *Sponsor: NSF and SRC, Industry Collaborators: AMD, IBM, Intel, Texas Instruments, and SEMATECH. Funding: \$400,000, Dates: October 2004 – September 2007. (Co-PI (equal share), with S.J. Qin and J.J. Hasenbein).*
23. "Predictive Maintenance in Semiconductor Manufacturing" *Sponsor: AMD through Advanced Manufacturing Center, Industry Collaborator: AMD, Funding: \$50,000, Dates: September 2007 – August 2008. (Lead Investigator (equal share), with J.J. Hasenbein).*
24. "Health and Social Services Optimization" (Unrestricted Gift Funding), *Sponsor and Collaborator: Gravitant, Funding: \$171,700, Dates: September 2005 – August 2014 (PI).*
25. "Scope of Scheduling in Semiconductor Manufacturing" (Unrestricted Gift Funding), *Sponsor and Collaborator: AMD, Funding: \$10,000, Dates: June-December 2005 (PI).*
26. "Integrated Analysis of Transportation and Inventory in Intermodal Distribution Networks" *Sponsor: Mack-Blackwell Transportation Center, Total Funding: \$109,000, Match: \$55,000, Dates: August 2002 – December 2003 (PI (equal share), with S.J. Mason, Total UT Portion: \$27,000, UT Actual Dollars: \$13,650).*

University of Arkansas

1. "Inventory Analysis for Navy Supply Command" *Sponsor: NAVSUP/TLI, Total Funding: \$50,000, Dates: August 2002 – December 2003 (Co-PI (equal share), with M.D. Rossetti, UT Portion: \$0).*
2. "Performance and Uptime Analysis for Production Lines at Con Agra" *Sponsor: Con Agra / TLI, Funding: \$50,000 Dates: August 2001 – July 2002 (PI (equal share), with T.R. Collins, E. Fant).*
3. "Modeling and Analysis of Transportation Flows Created by E-commerce Transactions" *Sponsor: MBTC, Industry Collaborator: ABF, Total Funding: \$134,647, Match: \$67,385, Dates: August 2000 – December 2001 (PI (equal share), with M.H. Cole and M.R. Bartolacci).*
4. "Efficient Timing of Pick-up and Delivery Assignment Decisions Through Simulation and Optimization" *Sponsor MBTC, Total Funding: \$151,438, Match: \$80,000 Dates: August 2000 – December 2001 (PI (equal share), with G.D. Taylor).*
5. "Efficient Dispatching in a Terminal City Network" *Sponsor: MBTC, Total Grant: \$115,920, Match: \$58,000 Dates: August 1999 – December 2000 (PI (equal share), with G.D. Taylor).*
6. "Impact of Wireless Data Systems on the Transportation Systems of the Future" *Sponsor: MBTC, Total Grant: \$60,000, Match: \$30,000 Dates: August 2001 – June 2002 (Co-PI (equal share), with S.J. Mason).*
7. "Review of COTS for Transportation and Logistics Planning" *Sponsor: Defense Logistics Agency / TLI, Funding: \$50,000 Dates: August 2000 – December 2001. (Co-PI (equal share), with M.D. Rossetti).*
8. "Empty Container Management for Container-on-Barge Transportation" *Sponsor: MBTC, Total Funding: \$100,078, Match: \$50,308 Dates: August 1999 – December 2000 (Co-PI (equal share), with M.H. Cole).*
9. "The Analysis of Inter-modal Choice Combinations and Pre-Positioning Strategies for Military Supplies and Materiel" *Sponsor: DLA / TLI, Total Funding: \$50,000 Dates: August 1999 – December 2000 (Co-PI (equal share), with M.D. Rosetti and T.R. Collins).*

**STUDENT
ADVISING****Ph.D. Dissertations, The University of Texas at Austin, Graduated**

1. Co-Chair, *A. Shukla, "Models for Grid Resilience to Flooding: Optimal Budgeting, Coordination, and Scenario Generation," May 2024 (Co-chair: J. Hasenbein).*
2. Co-Chair, *B.G. Austgen. "Threat and Decision Models for Informing Power Grid Resilience Under Uncertainty," May 2024 (Co-Chair: J. Hasenbein).*
3. Co-Chair, *J.J. Yip. "Application of Mathematical Optimization to the Resilience and Reliability of the Electric Grid," December 2023 (Electrical Engineering, Co-Chair: S. Santoso, ECE)*
4. Co-Chair, *K.Y. Kim, "Patient Evacuation Optimization for Health Care Facilities during Hurricanes," May 2021 (Co-Chair: J.J. Hasenbein).*
5. Chair, *M. Karatas, "Applications of Network Optimization in Cybersecurity and Service Parts Logistics," May 2019.*
6. Co-Chair, *Lesley Ying Chen, "Resource Allocation in Service and Logistics Systems," August 2016 (Co-Chair: J. Hasenbein).*
7. Co-Chair, *Neo HsinChan Huang, "Stockpiling and Resource Allocation for Influenza Preparedness and Manufacturing Assembly," August 2014 (Co-Chair: D. Morton).*
8. Co-Chair, *K. Derinkuyu, "Optimization Models for Transport and Service Scheduling," May 2011 (Co-Chair: A. Balakrishnan)*
9. Co-Chair, *E. Zarifoglu, "Planning and Scheduling in Semiconductor Manufacturing," August 2010 (Co-chair: J. Hasenbein).*
10. Co-Chair, *Y. Cai, "Semiconductor Manufacturing Inspired Integrated Scheduling Problems: Production Planning, Advanced Process Control, and Predictive Maintenance," August 2008 (ORIE, Co-Chair: J. Qin, Chemical Engineering).*

11. Chair, *M.F. Candas*, "Considering Inventory in Service Parts Logistics Network Design Problems with Time-Based Service Constraints," August 2007.
12. Chair, *I. Iyoob*, "Logistics Network Design with Inventory Sharing and Dedicated Facilities in Service Parts Supply Chains," August 2007.
13. Chair, *V. Jeet*, "Logistics Network Design with Inventory Stocking, Time-based Service and Part Commonality," December 2006.

Ph.D. Dissertations, The University of Texas at Austin, In-Progress

- *Siqiang (George) Guo*, August 2024 (Co-chair: S. Goodarzi).
- *Gizem T. Tutay*, May 2025 (Co-chair: J. Hasenbein).
- *Baris Bilir*, May 2025 (Co-chair: J. Hasenbein)
- *Berk Sahin*, May 2025.
- *Pin-Chun Chen*, Summer 2025.

Ph.D. Dissertations, University of Arkansas

- Co-chair, *D. Tjokroamidjojo*, "Value of Advance Load Information in Truckload Transportation Planning," December 2002 (Co-chair: G.D. Taylor).

M.S. Theses, The University of Texas at Austin

- Chair, *B. French*, "Post-Disaster Repair and Resilience Modeling for Power Grids with Road Network Considerations," May 2020.

M.S. Reports, The University of Texas at Austin

1. *Z. Liang*, ORIE, "A Comparative Analysis of Flight Crew Vacation Allocation Models," Spring 2019.
2. *V. Palav*, ORIE, "Constraint Sensitivity Analysis of Airline Crew Rostering using Preferential Bidding," Summer 2018.
3. *K.T. Rekapalli*, ORIE, "A Framework to Measure the Value of IoT in Spare Parts Logistics Networks," Fall 2017.
4. *L. Varghese*, ORIE, "Study of a Share Based Passenger Mix Model," Spring 2012.
5. *I. McFarland*, ORIE, "Demand Forecasting for Job Order Products in Highly Technological and Emerging Industries," Spring 2012.
6. *R. Chandrasekhar*, ORIE, Fall 2009. (Co-advisor: Leon Lasdon).
7. *F. Zhong*, ORIE, "The Application of Decision Analysis and Optimization on a Location Selection and Logistics Network Design Problem," Spring 2009. (Co-advisor: Leon Lasdon)
8. *Y. Sui*, ORIE, "Solving Service Part Logistics Network Design and Inventory Stocking Problems with Reactive Tabu Search," Summer 2008.
9. *K. Richardson*, ORIE, "A Simulation Study for a Network Design Problem with Inventory Stocking and Time-based Service Levels," Summer 2007.
10. *D.H.L. Deng*, ORIE, "Decision Making in Call Center Outsourcing: Impact of Agent Productivity and Training/Learning Time," Fall 2006.
11. *S. Radhakrishnan*, ORIE, "Preprocessing Computational Data to Generate Robust Schedules for Processing Time Variations," Summer 2006.
12. *T.C. Kraft*, Mechanical Engineering, Manufacturing Systems, "RadioShack De Mexico SKU Sourcing Analysis Using a (Q,R) Based Inventory Model," Spring 2005.
13. *B.K. Gandhi*, ORIE, "Taxonomy of Scheduling in Semiconductor Industry," Spring 2005.
14. *E.A. Bushey*, ORIE, "Analysis of the Market Strength of a Pivotal Supplier in a Deregulated Energy Market Using Optimization Models," Spring 2005.
15. *P. Shrivastava*, ORIE, "Parallel Machine Scheduling Using Lagrangian Relaxation and Combinatorial Auction," Spring 2005.
16. *S. Ozkan*, ORIE, "Base Configuration and Upgrade Pricing," Spring 2005.
17. *M. Mahajan*, ORIE, "An Inventory Allocation Model for a Multi-location Service Parts Logistics Network," Fall 2004.

18. *F. Tanrisever*, ORIE, "Job Formation and Scheduling in Semiconductor Manufacturing," Summer 2004.
19. *D. Lohiya*, Mechanical Engineering, "An Integrated Inventory and Multi-Modal Transportation Model for Service Parts Logistics," Summer 2004.
20. *J.W. Whitaker*, Mechanical Engineering, "Service Parts Logistic Network Optimization using Tabu Search," Spring 2004
21. *D. Pang*, ORIE, "Solving the Job Grouping and Scheduling Problem with Reactive Tabu Search," Spring 2004
22. *S. Ramanathan*, ORIE, "Estimating Service Levels in Inventory Sharing," Spring 2004.
23. *C.J. Richards*, ORIE, "Addressing the Railroad Inspection Allocation Problem through Nonlinear Regression," Spring 2004.
24. *A.G. Yunes*, Manufacturing Systems Engineering, "The effect of automation in the manufacturing industry: a special focus on information," Fall 2003.
25. *N.V. Sukhavasi*, ORIE, "Inventory Management in Service Parts Logistics: Differentiating customers on the basis of delivery lead time," Fall 2003.
26. *J. Suresh*, ORIE, "Logistics Network Design with Product Redesign and Product Flexibility," Fall 2003.
27. *B.P. Ramalingam*, ORIE, "Incentive Alignment in Capacitated Supply Chains with Information Flows: Linear Contract Approach," Summer 2003.
28. *K. Jayashankar*, Manufacturing Systems Engineering, "Analysis of Time Based Service Measures in Multi-Location Service Parts Logistics Systems with Inventory Transshipments," Summer 2003.
29. *R. Phimolsarnti*, Manufacturing Systems Engineering, "A Problem Space Search Algorithm for Generalized Assignment Problems," Summer 2003.
30. *S. Jatupornpakdee*, Manufacturing Systems Engineering, "Modeling Inventory Sharing in Logistics Systems," Summer 2003.
31. *D. Adinarayana*, Manufacturing Systems Engineering, "Service Part Logistics: A Spreadsheet and Case Study Approach," Spring 2003.
32. *S.S. Kumar*, ORIE, "Facility Location Models with Service Coverage Constraints and Uncertain Demand," Spring 2003.
33. *S. Singh*, Manufacturing Systems Engineering, "A Study on Business Improvement," Spring 2003.
34. *V. Tanuku*, Manufacturing Systems Engineering, "A Computational Investigation of Multi-Product Facility Location Problems," Spring 2003.

M.S. Theses, University of Arkansas

1. *R. Ling*, Industrial Engineering, "A Scaling-Based Heuristic for Resource Constrained Project Scheduling Problems," June 2002.
2. *W. Oon*, Industrial Engineering, "Multi-Echelon Logistics Network Design with Time-Based Service Constraints," May 2002.
3. *Y. Ho*, Industrial Engineering, "Modeling the Effects of E-Commerce on Inter-Regional Transportation Flows," October 2001.
4. *S. Lee*, Industrial Engineering, "Inventory Management with Location Interactions and Time-based Service Levels: A Simulation Study," September 2001

Ph.D. Committee Memberships

1. Shagun Gupta (Chair: R. Bollapragada, in progress)
2. Cem Karamanli (Chair: R. Bollapragada, in progress)
3. Abigail Crocker (Chair: S. Boyles, 2024)
4. Rachel L. Moglen (Chair: B. Leibowicz, 2024)
5. Suyash Chandra Vishnoi (Chair: C. Claudel, Transportation Engineering, 2023)
6. Tengkuo Zhu (Chair: S. Boyles, Transportation Engineering, 2022)
7. Nan Zhang (Chair: B. Leibowicz, 2022)
8. Priyadarshan Patil (Chair: S. Boyles, 2022)

9. Jooyong Lee (Chair: K. Kockelman, Transportation Engineering, 2021)
10. C. Gokalp (Chair: S. Boyles, 2021)
11. G. Jayadev (Co-chairs: B. Leibowicz and J. Bard, 2021)
12. J. Guo (Chair: J. Bard, 2020)
13. P.A. Mannon (Chair: S. Boyles, Transportation Engineering, 2020)
14. M. Simoni (Chair: C. Claudel, Civil Engineering, 2019)
15. S. Gupta (Chair: J. Hasenbein, 2019)
16. Y. Hur (Chair: J. Bard, 2017)
17. K. Wang (Chair: D. Djurdjanovic, 2017)
18. M. Celen (Chair: D. Djurdjanovic, 2016)
19. F. Lu (Co-Chairs: D. Morton and J. Hasenbein, 2014)
20. K. Zan (Chair: E. Bickel, 2013)
21. Z. Gao (Chair: J. Bard, 2013)
22. Z. Liang (Chair: J. Hasenbein, 2012)
23. K. Kapoor (Chair: T. Edgar, Chemical Engineering, 2013)
24. H. Parsa (Chair: M. Jin, Industrial Engineering, Mississippi State University, 2012)
25. J. Lee (Co-Chairs: D. Morton and J. Hasenbein, 2012)
26. K. Martin (Chair: J.W. Barnes, 2012)
27. Y. Shao (Chair: J. Bard, 2011)
28. R. Kumar (Chair: T. Waller, Civil Engineering, 2011)
29. A.R. Queiroz (Chair: D. Morton, 2011)
30. Nezamuddin (Chair: T. Waller, Civil Engineering, 2011)
31. B. Bregenzer (Co-chairs: S.J. Qin and J.J. Hasenbein, Chemical Engineering, 2011)
32. Y. Dashora (Chair: J.W. Barnes, 2010)
33. R. Basten (University of Twente, Co-chairs: M.C. van der Heijden and J.M.J. Schutten, 2010)
34. I. Singh (Chair: E. Popova, 2011)
35. T. Rengarajan (Chair: D. Morton, 2010)
36. A. Koc (Co-Chairs: D. Morton and E. Popova, 2010)
37. Y. Deng (Chair: J. Bard, 2009)
38. Z.J. Zhang (Mississippi State University, Chair: M. Jin, 2009)
39. D. Michalopoulos (Co-chairs: D. Morton and J.W. Barnes, 2008)
40. N. Nananukul (Chair: J. Bard, 2008)
41. M. Yang (Chair: J.W. Barnes, 2008)
42. C. Schoene (Chair: J. Qin, Chemical Engineering, 2007).
43. B. Buke (Co-Chairs: J.J. Hasenbein and D. Morton, 2007)
44. K.M. Adusumilli (Chair: J.J. Hasenbein, 2007)
45. B. Sampath (Chair: J.J. Hasenbein, 2007)
46. N.E. Lownes (Chair: R.B. Machemehl, Civil Engineering, 2007)
47. U. Yildirim (Chair: J.J. Hasenbein, 2006)
48. A.G. Roesener (Chair: J.W. Barnes, 2006)
49. Y. Wang (Co-Chairs: J. Bard and D. Morton, 2006)
50. K. McKinzie (Chair: J.W. Barnes, 2005)
51. G.W. Kinney (Chair: J.W. Barnes, 2005)
52. L. Wan (Chair: J. Bard, 2005)
53. H.W. Purnomo (Chair: J. Bard, 2005)
54. B.S. Dimova (Co-Chairs: J.W. Barnes and E. Popova, 2004)
55. G.R. Lambert (Chair: J.W. Barnes, 2004)
56. S. Rojanasoonthon (Chair: J. Bard, 2004)
57. R. Billings (Chair: J.J. Hasenbein, 2003)
58. J.M. Harwig (Chair: J.W. Barnes, 2003)
59. F. Tovia (University of Arkansas, Chair: R. Cassady, 2004)
60. N. Sortakul (University of Arkansas, Chair: R. Cassady, 2003)

M.S. Committee Memberships, The University of Texas at Austin

1. J. Yip, Spring 2020 (Electrical Engineering, Chair: S. Santoso)
2. Y. Shen, Spring 2012
3. B.T. Carroll, Engineering Management, Fall 2011
4. M. Liao, Spring 2011
5. J. An, Spring 2009
6. Y. Dashora, Summer 2008
7. J.A. Ramirez, Spring 2008
8. I. Rogers, Spring 2007
9. M. Harvey, Spring 2007
10. A. Vijayaraghavan, Spring 2007
11. J. Barreiro, Summer 2006
12. D. Lemme, Spring 2006
13. A. Partani, Fall 2005
14. K.M. Adusumilli, Summer 2005
15. T.H. Meyer, Spring 2005
16. D. Natarajan Mohan, Spring 2005
17. K.R. Srinivasan, Spring 2004
18. A. Sharma, Fall 2003
19. C.K. Maddukuri, Fall 2003
20. L. Ravi, Fall 2003
21. H. Lesmana, Spring 2003
22. S.M. Kamdar, Spring 2003
23. V. Kuriakose, Spring 2003
24. F. Hamza, Fall 2002

M.S. Committee Memberships, University of Arkansas

1. P.M. Ribera (2002, Chair: S.J. Mason)
2. G. Skinner (2002, Chair: S.J. Mason)
3. P. Qu (2002, Chair: S.J. Mason)
4. D. Mettenburg (2002, Chair: M.D. Rossetti)
5. K. Oey (2001, Chair: S.J. Mason)
6. T.Z. Hau (2001, Chair: S.J. Mason)
7. Y.S. Tee (2001, Chair: M.D. Rossetti)
8. S.T. Choong (2000, Chair: M.H. Cole)
9. H.R. Ural (2000, Chair: M. Cole)

PUBLICATIONS

*Student names are
italicized*

Invited Book Chapters

1. *Y. Cai*, **E. Kutanoglu**, and J.J. Hasenbein (2011) "Production Planning and Scheduling: Interaction and Coordination," *Planning Production And Inventories In The Extended Enterprise*, 15–42, edited by K.G. Kempf, P. Keskinocak, R. Uzsoy, published by Springer.
2. *Y. Sui*, **E. Kutanoglu**, and J.W. Barnes (2011) "Reactive tabu search for large scale service parts logistics network design and inventory problems," *Service Parts Management: Demand Forecasting and Inventory Control*, 251–278, edited by N. Altay and A. Litteral, published by Springer.

Refereed Journal Papers, published or accepted for publication

1. *B. Austgen*, **E. Kutanoglu**, J.J. Hasenbein, and S. Santoso (2024) "Comparisons of Two-stage Models for Flood Mitigation of Electrical Substations," *INFORMS Journal on Computing*, Available June 2024. DOI: 10.1287/ijoc.2023.0125.
2. *K.Y. Kim*, *G. Toplu-Tutay*, **E. Kutanoglu**, J.J. Hasenbein (2024) "A Stochastic Optimization Model for Patient Evacuation from Health Care Facilities during Hurricanes," *International Journal of Disaster Risk Reduction*, to appear. DOI: 10.1016/j.ijdr.2024.104518.

3. G. Toplu-Tutay, J.J. Hasenbein, **E. Kutanoglu** (2024) "Impact of Power Outages Depends on Who Loses It: Equity-Informed Scenario-based Optimization of Grid Resilience Planning," *Socio-Economic Planning Sciences*, to appear after minor revision.
4. J. Yip, V.C. da Cunha, B. Austgen, S. Santoso, **E. Kutanoglu**, J.J. Hasenbein (2024) "Optimal Application of Mobile Substation Resources for Transmission System Restoration under Flood Events," *IEEE Access*, Vol 12, pp. 23758-23781. DOI: 10.1109/ACCESS.2024.3362337.
5. R. Park, **E. Kutanoglu**, and M. Baldea (2023) "Dynamics and Uncertainty in Circular Supply Chains," *Computers and Chemical Engineering*, Vol. 180, 108441. DOI: 10.1016/j.compchemeng.2023.108441.
6. L. Souto, J. Yip, W.Y. Wu, B. Austgen, **E. Kutanoglu**, J.J. Hasenbein, Z.L. Yang, C.W. King, S. Santoso. (2022) "Power System Resilience to Floods: Modelling, Impact Assessment, and Mid-Term Mitigation Strategies," *International Journal of Electrical Power and Energy Systems*, Vol. 135, 107545. DOI: 10.1016/j.ijepes.2021.107545.
7. K.Y. Kim, W.Y. Wu, **E. Kutanoglu**, J.J. Hasenbein and Z.L. Yang. (2021) "Hurricane Scenario Generation for Uncertainty Modeling of Coastal and Inland Flooding," *Frontiers in Climate*, Vol. 3, 610680. DOI: 10.3389/fclim.2021.610680.
8. M. Karatas, and **E. Kutanoglu** (2021) "Joint Optimization of Location, Inventory, and Condition-based Replacement Decisions in Service Parts Logistics," *IISE Transactions*, Vol. 53, No. 2, 246–271. DOI: 10.1080/24725854.2020.1793035.
9. M.D. Simoni, **E. Kutanoglu**, and C.G. Claudel (2020) "Optimization and analysis of a robot-assisted last mile delivery system," *Transportation Research Part E: Logistics and Transportation Review*, Vol. 142, 102049. DOI: 10.1016/j.tre.2020.102049.
10. M.F. Candas and **E. Kutanoglu** (2020) "Integrated Location and Inventory Planning in Service Parts Logistics with Customer-based Service Levels," *European Journal of Operational Research*, Vol. 285, No. 1, 279–295. DOI: 10.1016/j.ejor.2020.01.058.
11. G.G. Jayadev, B.D. Leibowicz, and **E. Kutanoglu** (2020) "U.S. electricity infrastructure of the future: Generation and transmission pathways through 2050," *Applied Energy*, Vol. 260, February 2020, 114267. DOI: 10.1016/j.apenergy.2019.114267.
12. V. Jeet and **E. Kutanoglu** (2018) "Part Commonality Effects on Integrated Network Design and Inventory Models for Low-Demand Service Parts Logistics Systems," *International Journal of Production Economics*, Available online on September 27, 2018. Vol. 206, December 2018, 46–58.
13. M.D. Simoni, P. Bujanovic, S.D. Boyles, and **E. Kutanoglu** (2018), "Urban Consolidation Solutions for Parcel Delivery Considering Location, Fleet and Route Choice," *Case Studies on Transport Policy*, Vol. 6, No. 1, 112–124.
14. R. Basten, M. van der Heijden, M. Schutten, and **E. Kutanoglu** (2015), "An approximate approach for the joint problem of level of repair analysis and spare parts stocking," *Annals Of Operations Research*, Vol. 224, No. 1, 121–145.
15. L. Al-Kanj, Z. Dawy, S. Walid, and **E. Kutanoglu** (2013) "Energy-Aware Cooperative Content Distribution over Wireless Networks: Optimized and Distributed Approaches," *IEEE Transactions On Vehicular Technology*, Vol. 62, No. 8, 3828–3847.
16. Y. Cai, J. Hasenbein, **E. Kutanoglu**, and M. Liao (2013), "Single-machine Multiple-recipe Predictive Maintenance," *Probability In The Engineering And Informational Sciences*, Vol. 27, No. 2, 209–235.
17. I. Iyoob, and **E. Kutanoglu** (2013), "Inventory Sharing in Integrated Network Design and Inventory Optimization with Low -Demand Parts," *European Journal Of Operational Research*, Vol. 224, No. 3, 497–506.
18. E. Zarifoglu, J. Hasenbein, and **E. Kutanoglu** (2013), "Lot Size Management in the Semiconductor Industry: Queueing Analysis for Cycle Time Optimization," *IEEE Transactions on Semiconductor Manufacturing*, Vol. 26, No. 1, 92–99.

19. Y. Cai, E. Kutanoglu, J. Hasenbein, and J. Qin (2012), "Single-machine Scheduling with Advanced Process Control Constraints," *Journal of Scheduling*, Vol. 13, No. 2, 165–179.
20. V. Jeet, E. Kutanoglu, and A. Partani (2009), "Logistics Network Design with Inventory Stocking for Low-Demand Parts: Modeling and Optimization," *IIE Transactions*, Vol. 41, No. 5, 389–407.
21. E. Kutanoglu, and M. Mahajan (2009) "An Inventory Sharing and Allocation Method for a Multi-location Service Parts Logistics Network with Time-based Service Levels," *European Journal of Operational Research*, Vol. 194, No. 3, 728–742.
22. E. Kutanoglu and D. Lohiya (2008) "Integrated Inventory and Transportation Mode Selection: A Service Parts Logistics System," *Transportation Research - Part E*, Vol. 44, No. 5, 665–683.
23. F. Tanrisever, and E. Kutanoglu (2008) "Forming and Scheduling Jobs with Capacitated Containers in Semiconductor Manufacturing: Single Machine Problem," *Annals of Operations Research*, Vol. 159, No. 1, 5–24.
24. E. Kutanoglu (2008) "Insights into Inventory Sharing in Service Parts Logistics Systems with Time -based Service Levels," *Computers and Industrial Engineering*, Vol. 54, No. 3, 341–358.
25. M.F. Candas and E. Kutanoglu (2007) "Benefits of Considering Inventory in Service Parts Logistics Network Design Problems with Time-based Service Constraints," *IIE Transactions*, Vol. 39, No. 2, 159–176.
26. E. Kutanoglu and S.D. Wu (2007) "Coalitions in Coordinated Multi-Agent Production Scheduling: A Computational Study," *Journal of Manufacturing Systems*, Vol. 26, No. 1, 12-21.
27. V. Jeet and E. Kutanoglu (2007) "Lagrangian Relaxation Guided Problem Space Search Heuristics for the Generalized Assignment Problem," *European Journal of Operational Research*, Vol. 182, No. 3, 1039–1056.
28. D. Tjokroamidjojo, E. Kutanoglu, and G.D. Taylor (2006) "Quantifying the Value of Advance Load Information in Truckload Trucking," *Transportation Research, Part E*, Vol. 42, No. 4, 340–357.
29. E. Kutanoglu and S.D. Wu (2006) "Incentive Compatible, Collaborative Production Scheduling with Simple Communication among Distributed Agents," *International Journal of Production Research*, Vol 44, No. 3, 421–446.
30. C.R. Cassady and E. Kutanoglu (2005) "Integrating Preventive Maintenance Planning and Production Scheduling for a Single Machine," *IEEE Transactions on Reliability*, Vol. 54, No. 2, 304–309.
31. E. Kutanoglu and S.D. Wu (2004), "Improving Scheduling Robustness via Preprocessing and Dynamic Adaptation," *IIE Transactions*, Vol. 36, No. 11, 1107–1124.
32. C.R. Cassady and E. Kutanoglu (2003), "Minimizing Job Tardiness using Integrated Preventive Maintenance Planning and Production Scheduling," *IIE Transactions*, Vol. 35, No. 6, 503–513.
33. S. Choong, M.H. Cole, and E. Kutanoglu (2002), "Empty Container Management for Intermodal Transportation Networks," *Transportation Research - Part E*, Vol. 38, No. 6, 423–438.
34. E. Kutanoglu and I. Sabuncuoglu (2001), "Routing based reactive scheduling policies for machine failures in dynamic job shops," *International Journal of Production Research*, Vol. 39, No. 14, 3141–3158.
35. E. Kutanoglu and I. Sabuncuoglu (2001), "Experimental Investigation of Iterative Simulation-Based Scheduling in Dynamic and Stochastic Job Shops," *Journal of Manufacturing Systems*, Vol. 20, No. 4, 264–279.
36. E. Kutanoglu and S.D. Wu (1999), "On Combinatorial Auction and Lagrangean Relaxation for Distributed Resource Scheduling," *IIE Transactions*, Vol. 31, No. 9, 813–826.

37. **E. Kutanoglu** and I. Sabuncuoglu (1999), "An Analysis of Heuristics in a Dynamic Job Shop with Weighted Tardiness Objectives," *International Journal of Production Research*, Vol. 37, No. 1, 165–187.

Refereed Conference Proceedings, published or accepted

1. *A. Shukla*, J.J. Hasenbein, **E. Kutanoglu** (2024) "Flood Scenario Generation Using the NORTA Model," Proceedings of the Winter Simulation Conference, accepted.
2. *J. Yip*, S. Santoso, M. Garcia, B. Pierre, **E. Kutanoglu** (2022) "Optimal Mobile Energy Storage Pre-Placement for Black-Start Restoration," Proceedings of the IEEE Electrical Energy Storage Applications and Technologies Conference.
DOI: 10.1109/EESAT55007.2022.9998030.
3. G.A. Weaver, J.J. Hasenbein, *J.W. Shusko*, **E. Kutanoglu**, *G. Martinez-Medina*, K.K. Castillo-Villar, P.C. Costa (2022) "Simulating Energy and Security Interactions in Semiconductor Manufacturing: Insights from the Intel Minifab Model," Proceedings of the Winter Simulation Conference. DOI: 10.1109/WSC57314.2022.10015365.
4. *B. Sahin*, J.J. Hasenbein, **E. Kutanoglu** (2022) "A Stochastic Capacity Expansion Model for Enhanced Power Grid Resilience to Extreme Weather," Proceedings of the IISE Annual Conference, received a honorable mention in the Energy Systems track, best student award competition.
5. *B. Bilir*, **E. Kutanoglu**, J.J. Hasenbein (2022) "Optimal Location and Sizing of Energy Storage Systems to Enhance Power Grid Resilience," Proceedings of the IISE Annual Conference.
6. *B. Austgen*, M. Garcia, B. Pierre, J.J. Hasenbein, **E. Kutanoglu** (2022) "Winter Storm Scenario Generation for Power Grids Based on Historical Generator Outages," Proceedings of IEEE Power and Energy Society (PES), Transmission and Distribution Conference. DOI: 10.1109/TD43745.2022.9816863.
7. M. Garcia, *B. Austgen*, B. Pierre, J.J. Hasenbein, **E. Kutanoglu** (2022) "Risk-Averse Investment Optimization for Power System Resilience to Winter Storms," Proceedings of IEEE Power and Energy Society (PES), Transmission and Distribution Conference. DOI: 10.1109/TD43745.2022.9816875.
8. *B. Austgen*, J.J. Hasenbein, **E. Kutanoglu** (2022) "Comparison of Linear Power Flow Approximation Models in the Context of Winter Storm Planning," Proceedings of the IISE Annual Conference.
9. *B. Austgen*, *S. Gupta*, **E. Kutanoglu**, J.J. Hasenbein (2022) "Stochastic Hurricane Flood Mitigation for Power Grid Resilience," Proceedings of the IEEE Power and Energy Society (PES) General Meeting, nominated for a best paper award. DOI: 10.1109/PESGM48719.2022.9916822.
10. *G. Toplu-Tutay*, J.J. Hasenbein, **E. Kutanoglu** (2022) "A Scenario-based Optimization Model for Long-term Healthcare Infrastructure Resilience against Flooding," Proceedings of the IISE Annual Conference.
11. *J. Yip*, M. Garcia, B. Pierre, **E. Kutanoglu**, S. Santoso (2022) "Optimal Black-Start Restoration Assisted by Mobile Energy Storage," Proceedings of the IEEE Power and Energy Society (PES) General Meeting, DOI: 10.1109/PESGM48719.2022.9916822.
12. *A. Shukla*, *B. Austgen*, **E. Kutanoglu**, J.J. Hasenbein (2022), "Budget Allocation in Optimizing Power Grid Resilience to Extreme Weather: Hardening, Preparation, or Recovery?" Proceedings of the IISE Annual Conference, received the best student paper award from the Energy Systems Track.
13. *B. Austgen*, J.J. Hasenbein, **E. Kutanoglu** (2021) "Impacts of Approximate Power Flow Models on Optimal Flood Mitigation in a Stochastic Program," Proceedings of IISE Annual Conference, 518–523.
14. *A. Shukla*, J.J. Hasenbein, **E. Kutanoglu** (2021) "A Scenario-based Optimization Approach for Electric Grid Substation Hardening Against Storm Surge Flooding," Proceedings of IISE Annual Conference, 1004–1009.

15. K.Y. Kim, E. Kutanoglu, J.J. Hasenbein, W.Y. Wu and Z.L. Yang (2020) "A Large-Scale Patient Evacuation Modeling Framework using Scenario Generation and Stochastic Optimization," Proceedings of IISE Annual Conference, 1–6.
16. B. French, and E. Kutanoglu (2020) "Joint Optimization of Recovery Efforts for Power and Road Networks: The Value of Preparedness and Post-Disaster Coordination," Proceedings of IISE Annual Conference.
17. M.D. Simoni, E. Kutanoglu, and C.G. Claudel (2020) "An Analysis of Robot-Assisted Last Mile Delivery Systems," 99th Annual Meeting of the Transportation Research Board, received the **2020 TRB Urban Freight Committee Best Paper Award**.
18. G.G. Jayadev, B.D. Leibowicz, and E. Kutanoglu (2019) "U.S. Electricity Infrastructure of the Future: Generation and Transmission Pathways Through 2050," USAEE/IAEE North American Conference Proceedings, Denver, CO.
19. K.Y. Kim, E. Kutanoglu, and J.J. Hasenbein (2019) "Stochastic Optimization of Large-Scale Patient Evacuation Before Hurricanes," IISE Annual Conference and Expo, Orlando, FL.
20. T. Yurtsever, E. Kutanoglu, and J. Johns (2009), "Heuristic based scheduling system for diffusion in semiconductor manufacturing," Winter Simulation Conference, Austin, TX. (One of the best paper award finalists).
21. R.J.I. Basten, E. Kutanoglu, M.C. van der Heijden and J.M.J. Schutten (2009) "An integrated approach for level of repair analysis and spare parts stocking using marginal analysis," Proceedings of INFORMS MSOM Conference, Cambridge, MA.
22. Y. Cai, E. Kutanoglu, J.J. Hasenbein and S.J. Qin (2007) "Single-machine Scheduling Problem with Advanced Process Control Constraints," Proceedings of 2007 AEC/APC Symposium XIX, Indian Wells, CA.
23. Y. Cai, E. Kutanoglu, J.J. Hasenbein and S.J. Qin (2007) "Coordinating Advanced Process Control and Scheduling in a Parallel-machine Model," Proceedings of SRC Global Research Collaboration (GRC) TECHCON 2007, Austin, TX.
24. C. Schoene, S.J. Qin, and E. Kutanoglu (2007) "Electrical Parameter Control for Semiconductor Device Manufacturing: A Fabwide Approach," Proceedings of DYCOPS 2007 8th International Symposium on Dynamics and Control of Process Systems, International Federation of Automatic Control (IFAC), Cancun, Mexico.
25. E. Kutanoglu (2007) "An Inventory Sharing and Allocation Method for a Multi-location Service Parts Logistics Network with Time-based Service Levels," Proceedings of the 2007 POMS Conference, Production and Operations Management Society (POMS), Dallas, TX.
26. Y. Cai, E. Kutanoglu, J.J. Hasenbein, and S.J. Qin (2007) "Coordinating Advanced Process Control and Scheduling in Semiconductor Manufacturing: Insights from Single-Stage Models," Proceedings of 16th Industrial Engineering Research Conference, IIE, Nashville, TN.
27. I.M. Iyoob, and E. Kutanoglu (2007) "Benefits of Inventory Pooling for Service Parts Logistics Systems," Proceedings of 16th Industrial Engineering Research Conference, IIE, Nashville, TN.
28. E. Kutanoglu, and M. Nehme (2007) "Fab-wide Preventive Maintenance Task Planning and Scheduling in Semiconductor Manufacturing," Proceedings of 16th Industrial Engineering Research Conference, IIE, Nashville, TN.
29. M.A. Huerta, B. Fernandez, and E. Kutanoglu (2007) "Manufacturing Multiagent System for Scheduling Optimization of Production Tasks Using Dynamic Genetic Algorithms," Proceedings of 2007 IEEE International Symposium on Assembly and Manufacturing (ISAM 2007), IEEE, Ann Arbor, MI.
30. E. Kutanoglu, V. Jeet, and M.F. Candas (2006) "Solution Methodologies for Integrated Network Design and Inventory Management in Service Parts Logistics," Proceedings of 15th Industrial Engineering Research Conference, IIE, Orlando, FL.

31. **E. Kutanoglu** and *D. Lohiya* (2005) "A Joint Inventory and Multi-Modal Transportation Model for Service Parts Logistics," *Proceedings of 14th Industrial Engineering Research Conference*, IIE, Atlanta, GA.
32. **E. Kutanoglu**, *M.F. Candas*, and *V. Jeet* (2005) "Considering Stochastic Inventory in Logistics Network Design Problems with Response Time Constraints," *Proceedings of 14th Industrial Engineering Research Conference*, IIE, Atlanta, GA.
33. *F. Tanrisever*, **E. Kutanoglu**, and *S.J. Mason* (2004), "Forming and Scheduling Jobs from Multiple Orders with Different Attributes: A Computational Study of Special Cases," *Proceedings of 13th Industrial Engineering Research Conference*, IIE, Houston, TX.
34. *P. Qu*, *S.J. Mason*, **E. Kutanoglu** and *J.W. Fowler* (2004), "A Polynomial Time Heuristic for Scheduling Multiple-Order Jobs on a Single Machine," *Proceedings of 13th Industrial Engineering Research Conference*, IIE, Houston, TX.
35. *M.F. Candas* and **E. Kutanoglu** (2004) "Integrated Logistics Network Design and Inventory Stocking with Time-Based Service Levels," *Proceedings of 13th Industrial Engineering Research Conference*, IIE, Houston, TX.
36. *V. Jeet* and **E. Kutanoglu** (2004) "An Algorithm for Logistic Network Design Problems with Time-based Service Constraints," *Proceedings of 13th Industrial Engineering Research Conference*, IIE, Houston, TX.
37. *D. Tjokroamidjojo*, **E. Kutanoglu**, and *G.D. Taylor* (2004) "Advance Load Information Value in Transportation Logistics under Stochastic Conditions," *Proceedings of 13th Industrial Engineering Research Conference*, IIE, Houston, TX.
38. *R. Ling*, **E. Kutanoglu**, and *S.J. Mason* (2003) "Scaling-based Algorithms for Resource Constrained Project Scheduling," *Proceedings of 12th Industrial Engineering Research Conference*, IIE, Portland, OR.
39. *F. Tovia*, *C.R. Cassady*, and **E. Kutanoglu** (2003), "Inventory Management through Information Sharing and Collaboration," *31st International Conference on Computers and Industrial Engineering*, San Francisco, California.
40. *F. Tovia*, **E. Kutanoglu**, and *T. Collins* (2002) "Throughput Analysis in a Frozen Food Processing Facility," *Proceedings of 11th Industrial Engineering Research Conference*, IIE, Orlando, FL.
41. *W.C. Oon* and **E. Kutanoglu** (2002) "Heuristics for Multi-Level Logistics Network Design Problems with Service Coverage Constraints," *Proceedings of 11th Industrial Engineering Research Conference*, IIE, Orlando, FL.
42. *G.M. Magableh*, *S.J. Mason*, and **E. Kutanoglu** (2002) "The Impact of Wireless Data Systems on Transportation Systems of the Future," *Proceedings of 11th Industrial Engineering Research Conference*, IIE, Orlando, FL.
43. *P. Qu*, *S.J. Mason*, and **E. Kutanoglu** (2002) "Scheduling jobs containing multiple orders," *Proceedings of International Conference on Modeling and Analysis of Semiconductor Manufacturing*, Phoenix, AZ.
44. **E. Kutanoglu** and *S.D. Wu* (2001), "Lagrangian Relaxation-Based Techniques for Job Shop Scheduling," *Proceedings of 10th Industrial Engineering Research Conference*, IIE, Dallas, TX.
45. *M.H. Cole*, *H.R. Ural*, and **E. Kutanoglu** (2001) "Design and Analysis of Dynamic Focused Storage Systems," *Progress in Material Handling Research: 2000*, Editors: *R.J. Graves*, *L.F. McGinnis*, *M.K. Ogle*, *B.A. Peters*, *R.E. Ward*, *M.R. Whilhem*, Material Handling Institute, Charlotte, NC, 78–83.
46. **E. Kutanoglu** and *S.D. Wu* (2000), "Schedule Selection Game: A Game-Theoretic Analysis for Incentive Compatible Scheduling," *Proceedings of 9th Industrial Engineering Research Conference*, IIE, Cleveland, OH.
47. **E. Kutanoglu** and *I. Sabuncuoglu* (1995), "An Investigation of Reactive Scheduling Policies under Machine Breakdowns," *Proceedings of 4th Industrial Engineering Research Conference*, IIE, Nashville, Tennessee, 1995.

48. **E. Kutanoglu** and I. Sabuncuoğlu (1994), "Experimental Investigation of Scheduling Rules in a Dynamic Job Shop with Weighted Tardiness Costs," *Proceedings of 3rd Industrial Engineering Research Conference, IIE*, Atlanta, Georgia, 1994.

Submitted, In review, Under revision

1. *B. Austgen*, **E. Kutanoglu**, and J.J. Hasenbein, "A two-stage stochastic programming model for electric substation flood mitigation prior to an imminent hurricane."
2. *S. Tabassum*, W.Y. Wu, *A. Shukla*, **E. Kutanoglu**, Z.L. Yang, "Evaluating Flood Risk from Tropical Cyclones on Texas' Critical Infrastructures."
3. *M. Karatas*, S.G. Guo, and **E. Kutanoglu**, "Logistical Effects of Additive Manufacturing Capability in Service Parts Logistics with Condition Based Replacements."
4. *A. Shukla*, **E. Kutanoglu**, and J.J. Hasenbein, "Scenario-based Optimization Models for Power Grid Resilience to Extreme Flooding Events."
5. *S. Guo*, S. Goodarzi, **E. Kutanoglu**, and M. Singh "Cost Carbon Trade-off in Using a Mixed Fleet of Hydrogen and Diesel Trucks."
6. *B. Bilir*, **E. Kutanoglu**, J.J. Hasenbein, *B. Austgen*, M. Garcia, J.K. Skolfield, "Enhancing Power Grid Resilience to Winter Storms with Equity Considerations."
7. *A. Shukla*, **E. Kutanoglu**, J.J. Hasenbein, "Co-optimization of Short- and Long-term Decisions for the Transmission Grid's Resilience to Flooding"
8. *B. Austgen*, M. Garcia, *J. Yip*, B. Arguello, B. Pierre, **E. Kutanoglu**, J.J. Hasenbein, and S. Santoso, "Risk-Averse Three-Stage Investment Optimization to Improve Power System Resilience to Winter Storms."
9. *B. Austgen*, J.J. Hasenbein, **E. Kutanoglu** "On Simplices with a Given Barycenter That Are Enclosed by the Standard Simplex."
10. *B. Sahin*, J.J. Hasenbein, and **E. Kutanoglu**, "Value of Considering Extreme Weather Resilience in Grid Capacity Expansion Planning."

In Preparation for Journal Submission

1. *A. Shukla*, J.J. Hasenbein, **E. Kutanoglu**, "Flood Scenario Generation Using the NORTA Model."
2. *S. Guo*, **E. Kutanoglu**, S. Goodarzi, "Integrated Planning of Hydrogen Supply Chain and Power System."
3. *G. Toplu-Tutay*, **E. Kutanoglu**, J.J. Hasenbein, "Optimal Flood Resilience Planning for Healthcare Facilities: A Texas Case Study with Historical Storms."

Technical Reports

- C.W. King, J.D. Rhodes, J. Zarnikau, **E. Kutanoglu**, B. Leibowicz, D. Niyogi, V. Rai, S. Santoso, D. Spence, S. Tompaidis, H. Zhu, E. Funkhouser, *B. Austgen* (2021) "The timeline and events of the February 2021 Texas electric grid blackouts," UT Austin Energy Institute.

Datasets

- Dawson, C., *C. Del-Castillo-Negrete*, *A. Shukla*, *B. Pachev*, *C. Kaiser*, **E. Kutanoglu**. (2021) "ADCIRC Simulation of Synthetic Storms in the Gulf of Mexico," in Texas FEMA Hurricane Winds and Surge. DesignSafe-CI. DOI: 10.17603/ds2-68a9-0s64.

Non-refereed Conference Proceedings and Poster Sessions

- *G. Toplu-Tutay*, J.J. Hasenbein, **E. Kutanoglu** (2022) "Disparate Impacts of Extreme Flooding and Power Grid Failures in Different Communities," INFORMS Annual Meeting.

- *B. Austgen, M. Garcia, B. Pierre, E. Kutanoglu, J.J. Hasenbein* (2022) "Risk-averse investment optimization for power grid resilience to winter storms," UT Austin Spring 2022 Sandia Day.
- *B. Austgen, E. Kutanoglu, S. Santoso, Z.L. Yang, J.J. Hasenbein, C. King, A. Shukla, S. Tabassum, W.Y. Wu, J. Yip, B. Bilir, B. Sahin, K.Y. Kim, L. Souto, G. Toplu-Tutay, S. Gupta* (2021) "Defending the electricity infrastructure against extreme weather events, now and in the future," UT Austin Energy Institute: Fueling a Sustainable Energy Transition Program Review.
- *B. Austgen, A. Shukla, Z.L. Yang, S. Santoso, E. Kutanoglu, J.J. Hasenbein* (2021) "Integrated short- and mid-term flood resilience optimization for power grids," UT Austin Energy Institute: Fueling a Sustainable Energy Transition Project Review.
- *B. Austgen, A. Shukla, E. Kutanoglu, J.J. Hasenbein* (2021) "An End-to-End Framework for Informing Hurricane Resilience Investments in Critical Infrastructure," Texas Advanced Computing Center (TACC) Symposium for Texas Researchers (TACCSTER).
- *B. Austgen, J. Yip, B.J. Pierre, E. Kutanoglu, S. Santoso* (2021) "Critical node identification vulnerability modeling and topology optimization for the electric grid," UT Austin Spring 2021 Sandia Day.
- *G.G. Jayadev, B.D. Leibowicz, and E. Kutanoglu* (2019) "U.S. Energy Infrastructure of the Future: Electricity Capacity Planning Through 2050," *International Conference on Continuous Optimization ICCOPT*, Berlin, Germany.
- *T. Yurtsever, J. Johns, and E. Kutanoglu* (2009) "A Heuristic Based Scheduling System for Diffusion Processing in Semiconductor Manufacturing," *INFORMS Annual Meeting, Interactive Sessions Poster*, San Diego, CA.
- *E. Zarifoglu, E. Kutanoglu, and J. Hasenbein* (2009) "AMHS Scheduling in Semiconductor Manufacturing: Advancements in Information Infrastructure," *International Sematech Manufacturing Initiative (ISMI) Manufacturing Week*, Austin, TX.
- *E. Zarifoglu, J. Hasenbein, and E. Kutanoglu* (2009) "AMHS Scheduling in Semiconductor Manufacturing," *INFORMS Annual Meeting, Interactive Sessions Poster*, San Diego, CA.
- **E. Kutanoglu** (2006) "CAREER: Analysis of Multi-dimensional Coordination Problems in Service Parts Logistics," *Proceedings of NSF Design, Manufacturing, and Service Grantees and Research Conference*, St. Louis, MO.
- **E. Kutanoglu** (2005) "CAREER: Analysis of Multi-dimensional Coordination Problems in Service Parts Logistics," *Proceedings of NSF Design, Manufacturing, and Service Grantees and Research Conference*, Scottsdale, AZ.
- **E. Kutanoglu** (2004) "CAREER: Analysis of Multi-dimensional Coordination Problems in Service Parts Logistics," *Proceedings of NSF Design, Manufacturing, and Service Grantees and Research Conference*, Dallas, TX.
- **E. Kutanoglu** (2003) "CAREER: Analysis of Multi-dimensional Coordination Problems in Service Parts Logistics," *Proceedings of NSF Design, Manufacturing, and Service Grantees and Research Conference*, Edited by R.G. Reddy, Pages 859–893, Birmingham, AL.

Theses, Dissertations, and Working Papers

- "Distributed Resource Scheduling: Optimization Models, Equilibrium Conditions, and Incentive Compatible Mechanisms," *Ph.D. Dissertation*, Department of Industrial and Systems Engineering, Lehigh University, Bethlehem, PA, 1999.
- "Job Shop Scheduling under Dynamic and Stochastic Manufacturing Environments," *M.S. Thesis*, Department of Industrial Engineering, Bilkent University, Ankara, Turkey, 1995.

**INVITED or
SPONSORED
PRESENTATIONS**
Excluding the conference
proceedings papers
*Student names are
italicized*

1. *S. Tabassum*, Z.L. Yang, W.Y. Wu, *A. Shukla*, **E. Kutanoglu** (2023) "Advancing Critical Infrastructure Resilience against Tropical Cyclone-Induced Flooding," AGU Fall Meeting.
2. *B. Austgen*, **E. Kutanoglu**, J.J. Hasenbein, *J. Yip*, S. Santoso, M. Garcia, B. Arguello, B. Pierre (2023) "Risk-averse Three-stage Investment Optimization To Improve Power System Resilience To Winter Storms," INFORMS Annual Meeting.
3. *A. Shukla*, **E. Kutanoglu**, J.J. Hasenbein (2023) "Co-optimization of Short- and Long-term Decisions for the Transmission Grid's Resilience to Flooding," INFORMS Annual Meeting.
4. *S.G. Guo*, **E. Kutanoglu**, S. Goodarzi (2023) "Integrated planning of hydrogen supply chain and power system," INFORMS Annual Meeting.
5. *S. Tabassum*, *A. Shukla*, *G. Toplu-Tutay*, W.Y. Wu, Z.L. Yang, **E. Kutanoglu**, J.J. Hasenbein, C. King, S. Santoso (2022) "Towards Improving Infrastructure Resilience to Tropical Cyclone Induced Flooding," AGU Fall Meeting.
6. Z.L. Yang, **E. Kutanoglu**, S. Santoso, J.J. Hasenbein, *S. Tabassum*, *J. Yip*, *B. Austgen*, C. King (2022), "Integrated Decision Support for Adapting the Power Grid to Climate Change: Resilient Infrastructure Planning via Transdisciplinary Modeling," AGU Fall Meeting.
7. *B. Austgen*, J.J. Hasenbein, **E. Kutanoglu** (2022) "A Performance-constrained Stochastic Optimal Power Flow Model for Flood Resilience Planning," INFORMS Annual Meeting.
8. *A. Shukla*, **E. Kutanoglu**, J.J. Hasenbein (2022) "Budget Allocation for Power Grid Resilience: Hardening, Pre-event Preparation or Load Loss," INFORMS Annual Meeting.
9. *B. Bilir*, **E. Kutanoglu**, J.J. Hasenbein (2022) "Equitable Optimization of Power Grid Resiliency," INFORMS Annual Meeting.
10. *B. Sahin*, J.J. Hasenbein, **E. Kutanoglu** (2022) "Capacity Expansion of Power Grid to Enhance the Resilience Against Extreme Weather," INFORMS Annual Meeting.
11. **E. Kutanoglu** (2022) "Integrated Prediction and Optimization for Power Grid Resilience Planning," INFORMS Annual Meeting.
12. *S. Guo*, S. Goodarzi, **E. Kutanoglu** (2022) "Vehicle Routing Problem Using a Mixed Fleet of Traditional and Clean Trucks," INFORMS Annual Meeting.
13. **E. Kutanoglu** (2022), "Integrated Prediction and Optimization for Resilience to Extreme Events: Power Grid and Healthcare Infrastructure Mitigation and Adaptation" Department of Industrial Engineering, the University of Miami (Invited Seminar)
14. *S. Tabassum*, Z.L. Yang, W.Y. Wu, *A. Shukla*, **E. Kutanoglu**, J.J. Hasenbein, C. King (2021) "Machine Learning-Based Streamflow Forecasting Approach," 10th Annual Jackson School Student Research Symposium, the University of Texas at Austin.
15. **E. Kutanoglu** (2021) "Disaster Decision Making: Integrated Prediction and Optimization for Resilience Planning," UT Austin, Cockrell School of Engineering, TexTalks Series.
16. **E. Kutanoglu**, W.Y. Wu, *S. Tabassum*, *A. Shukla*, *B. Austgen*, *J. Yip*, Z.L. Yang, J.J. Hasenbein, C. King, S. Santoso (2021), "Closing the Gap from Uncertainty Quantification to Decision Making: Integrated Prediction-Optimization Modeling of the Critical Infrastructure Flood Resilience," (Abstract ID: 944233), 2021 AGU Fall Meeting.
17. *A. Shukla*, *S. Tabassum*, W.Y. Wu, *B. Austgen*, **E. Kutanoglu**, Z.L. Yang, J.J. Hasenbein, C. Dawson (2021), "Integrated Intelligence for Electric Grid Resilience using Storm Surge and Inland Flooding Models," (Abstract ID: 998943), 2021 AGU Fall Meeting.

18. Z.L. Yang, W.Y. Wu, S. Chung, A. Tavakoly, **E Kutanoglu**, J.J. Hasenbein (2021), "Modeling the impacts of tropical storms and hurricanes on watershed hydrology and water quality," (Abstract ID: 1003310), 2021 AGU Fall Meeting.
19. W.Y. Wu, Z.L. Yang, *B. Austgen*, *S. Tabassum*, **E Kutanoglu**, J. Hasenbein, C. King, S. Santoso (2021), "Incorporating Hurricane Forecasts into WRF-Hydro for Ensemble Generation," (Abstract ID: 997089), 2021 AGU Fall Meeting.
20. *S. Tabassum*, Z.L. Yang, W.Y. Wu, *A. Shukla*, **E. Kutanoglu**, J. Hasenbein, C. King, S. Santoso (2021), "Changes in Extreme Rainfall Events under Global Warming: A Case Study for Texas," (Abstract ID: 904986), 2021 AGU Fall Meeting.
21. *B. Austgen*, **E. Kutanoglu**, J.J. Hasenbein (2021) "Development of Realistic Natural Hazard Contingencies for Synthetic Power Grids," INFORMS Annual Meeting.
22. *A. Shukla*, J.J. Hasenbein, **E. Kutanoglu** (2021) "A Multi Stage Stochastic Optimization Approach To Electric Grid Resilience Against Storm Surge Flooding," INFORMS Annual Meeting.
23. *J. Yip*, S. Santoso, **E. Kutanoglu**, J.J. Hasenbein (2021) "Optimal Utilization of Mobile Substations for Mitigating Flood Damage to an Electric Power Grid," INFORMS Annual Meeting.
24. *B. Austgen*, **E. Kutanoglu**, J.J. Hasenbein (2020) "Optimized Reinforcement of an Electric Power Grid Prior to Imminent Hurricane Landfall," INFORMS Annual Meeting.
25. *A. Shukla*, **E. Kutanoglu**, J.J. Hasenbein (2020) "A Scenario Based Optimization Approach for Electric Grid Substation Hardening," INFORMS Annual Meeting.
26. *K.Y. Kim*, **E. Kutanoglu**, J.J. Hasenbein (2020) "Evacuation Planning for Healthcare Providers Under Forecasted Disasters," INFORMS Annual Meeting.
27. *B. French*, **E. Kutanoglu** (2020), "Coordinated Power Grid and Road Recovery Optimization After Disasters," INFORMS Annual Meeting.
28. **E. Kutanoglu** (2020), "Integrated Flood Prediction and Stochastic Optimization: Logistics of Large-scale Patient Evacuation before Hurricanes," The University of Texas at Austin, Operations Research and Industrial Engineering Seminar.
29. **E. Kutanoglu** (2020), "Disaster Analytics: Integrated Science-based Prediction and Optimization-based Decision Making," The University of Texas at Austin, Presentation to the Institute for Disaster Analytics.
30. **E. Kutanoglu** (2019), "Integrated Flood Prediction and Stochastic Optimization: Logistics of Large-scale Patient Evacuation before Hurricanes," University of Houston, Department of Industrial Engineering Seminar.
31. **E. Kutanoglu** (2019), "Integrated Flood Prediction and Stochastic Optimization: Logistics of Large-scale Patient Evacuation before Hurricanes," University of Tennessee, Knoxville, Department of Industrial Engineering Seminar.
32. *G.G. Jayadev*, *B. Leibowicz*, and **E. Kutanoglu** (2019), "U.S. Electricity Infrastructure of the Future: Generation and Transmission Pathways through 2050," INFORMS Annual Meeting, Seattle, WA.
33. *K.Y. Kim*, **E. Kutanoglu**, and J. Hasenbein (2019), "An Integrated Optimization Framework in Modeling Patient Evacuation Before Hurricanes," INFORMS Annual Meeting, Seattle, WA.
34. *B. French*, and **E. Kutanoglu** (2019), "Post-disaster Joint Repair of Road and Power Networks," INFORMS Annual Meeting, Seattle, WA.
35. *K.Y. Kim*, **E. Kutanoglu**, and J. Hasenbein (2018), "A Stochastic Integer Programming Framework for Large Scale Patient Evacuation under a Forecasted Disaster," INFORMS Annual Meeting, Phoenix, AZ.

36. *M. Karatas* and **E. Kutanoglu** (2018), "Integrated Location and Inventory Modeling for Service Systems: Condition-based Replacements with IoT-based Data," INFORMS Annual Meeting, Phoenix, AZ.
37. *G.G. Jayadev*, *B. Leibowicz*, and **E. Kutanoglu** (2018), "U.S. Energy Infrastructure of the Future: Electricity Capacity Planning through 2050," INFORMS Annual Meeting, Phoenix, AZ.
38. *M. Karatas* and **E. Kutanoglu** (2017), "Joint Location and Inventory Analysis in IoT-based Service Parts Logistics Systems: Inventory Analysis," INFORMS Annual Meeting, Houston, TX.
39. **E. Kutanoglu**, *I. Iyoob*, *K.T. Rekapalli* (2017) "Value of IoT in Spare Parts Logistics Networks," INFORMS Annual Meeting, Houston, TX.
40. **E. Kutanoglu**, *L.Y. Chen* (2012), "Integrated Replenishment and Inbound Transportation for High-mix Assembly Lines," INFORMS Annual Meeting, Phoenix, AZ.
41. **E. Kutanoglu**, *L.Y. Chen* (2012), "Inbound Transportation and Inventory Optimization to Supply Parts to High-Mix Assembly Lines," IIE Industrial and Systems Engineering Research Conference, Orlando, FL.
42. *M. Schutten*, *R. Basten*, **E. Kutanoglu**, *M. van der Heijden* (2011), "An Approximate Approach for the Joint Problem of Level of Repair Analysis and Spare Parts Stocking," INFORMS Annual Meeting, Charlotte, NC.
43. **E. Kutanoglu** (2011), "Integrated Logistics Network Design and Inventory Problems with Service Levels for Low Demand Items," INFORMS Annual Meeting, Charlotte, NC.
44. **E. Kutanoglu** (2010), "Semiconductor Manufacturing Inspired Integrated Scheduling Problems," Joint Operations Management and Industrial Engineering Graduate Seminar Series, Sabanci University, Istanbul, Turkey.
45. **E. Kutanoglu**, *T. Yurtsever*, and *J. Johns* (2010), "Impact of Decision Variables on the Quality of Scheduling Solutions in Semiconductor Manufacturing," INFORMS Annual Meeting, Austin, TX.
46. **E. Kutanoglu**, *V. Jeet*, *A. Partani* (2010), "Logistics Network Design with Inventory Stocking for Low-demand Parts: Modeling and Optimization," INFORMS Annual Meeting, Austin, TX.
47. *M.F. Candas*, and **E. Kutanoglu** (2010), "Network Design and Inventory Management for Service Parts Logistics with System-wide Service Level," INFORMS Annual Meeting, Austin, TX.
48. **E. Kutanoglu** (2010), "Integrated Logistics Network Design and Inventory Stocking with Time-based Service Levels for Low Demand Items," Qatar University Wireless Innovations Center Technical Presentation, Doha, Qatar.
49. *R.J.I. Basten*, **E. Kutanoglu**, *M.C. van der Heijden*, and *J.M.J. Schutten* (2009) "Integrating the level of repair analysis (LORA) and spare parts stocking problems," INFORMS Annual Meeting, San Diego, CA.
50. *M.F. Candas*, and **E. Kutanoglu** (2009) "Customer-centric Service Levels in Integrated Service Parts Logistics Problems," INFORMS Annual Meeting, San Diego, CA.
51. *J. Hasenbein*, *Y. Cai*, and **E. Kutanoglu** (2009) "Joint Scheduling of Jobs and PM's in Multiclass Systems," INFORMS Annual Meeting, San Diego, CA.
52. *R.J.I. Basten*, **E. Kutanoglu**, *M.C. van der Heijden*, and *J.M.J. Schutten* (2009) "An integrated approach for level of repair analysis and spare parts stocking using marginal analysis," European Conference on Operational Research, Bonn, Germany.

53. **E. Kutanoglu**, *V. Jeet*, and *A. Partani* (2009) "Integrated Logistics Network Design and Inventory Stocking for Low-Demand Parts," Third Annual Workshop on Supply Chain and Logistics, Bilkent University, Ankara, Turkey.
54. **E. Kutanoglu**, *V. Jeet*, and *A. Partani* (2009) "Integrated Logistics Network Design and Inventory Stocking for Low-Demand Parts," Joint Industrial Engineering and Operations and Information Systems Seminar, Koc University, Istanbul, Turkey.
55. **E. Kutanoglu**, *V. Jeet*, and *A. Partani* (2009) "Integrated Logistics Network Design and Inventory Stocking for Low-Demand Parts," Joint Industrial Engineering and Operations Management and Information Systems Seminar, Sabanci University, Istanbul, Turkey.
56. **E. Kutanoglu**, and *M.F. Candas* (2009) "Customer-centric Service Levels in Integrated Service Parts Logistics Problems," National Operations Research and Industrial Engineering Conference, 2009, Ankara, Turkey.
57. *E. Zarifoglu*, **E. Kutanoglu**, and *J. Hasenbein* (2009) "AMHS Scheduling in Semiconductor Manufacturing: Motivation and Insights," IIE Industrial Engineering Research Conference, Miami, FL.
58. **E. Kutanoglu**, *V. Jeet*, and *A. Partani* (2009) "Integrated Logistics Network Design and Inventory Stocking for Low-Demand Parts" Department of Industrial and Systems Engineering, Mississippi State University, Mississippi State, MS.
59. *V. Jeet*, **E. Kutanoglu**, and *A. Partani* (2009) "Integrated Logistics Network Design and Inventory Stocking for Low-Demand Parts: Modeling and Optimization," H. Milton Stewart School of Industrial and Systems Engineering, Georgia Institute of Technology, Atlanta, Georgia.
60. **E. Kutanoglu**, *V. Jeet*, and *A. Partani* (2008) "Integrated Logistics Network Design and Inventory Stocking for Low-Demand Parts: Modeling and Optimization," ORIE Graduate Seminar Series, The University of Texas at Austin, Austin, TX.
61. **E. Kutanoglu**, *W. Barnes*, and *Y. Sui* (2008) "Efficient Metaheuristics for Large-scale Integrated Network Design and Inventory Stocking Problems," INFORMS Annual Meeting, Washington, DC.
62. *I. Iyob*, and **E. Kutanoglu** (2008) "Inventory Sharing in Integrated Network Design and Inventory Optimization," IIE Industrial Engineering Research Conference, Vancouver, BC, Canada.
63. *E. Zarifoglu*, **E. Kutanoglu**, and *J. Hasenbein* (2008) "Small Lot Semiconductor Manufacturing: Modeling the Effect of Lot Size on Congestion and Cycle Times," IIE Industrial Engineering Research Conference, Vancouver, BC, Canada.
64. *E. Zarifoglu*, **E. Kutanoglu**, and *J. Hasenbein* (2008) "Small Lot Size Manufacturing in Semiconductor Industry: Effects on Cycle Time and Congestion," INFORMS Southwest Regional Conference, College Station, TX.
65. **E. Kutanoglu**, *V. Jeet*, and *A. Partani* (2008) "Integrated Logistics Network Design and Inventory Stocking for Low-Demand Parts: Modeling and Optimization," INFORMS Lecture Series, Department of Industrial Engineering, University of Houston, Houston, TX.
66. **E. Kutanoglu** (2007) "Optimization-Based Batching and Scheduling in Semiconductor Wafer Manufacturing," INFORMS International Meeting, Puerto Rico.
67. **E. Kutanoglu**, *I.M. Iyob*, and *M.F. Candas* (2007) "Customer-Centric Service Levels and Inventory Sharing in Service Parts Logistics Network Design and Inventory Problems," INFORMS International Meeting, Puerto Rico.

68. V. Jeet, and E. Kutanoglu (2006) "Multicommodity Logistics Network Design Models with Inventory Stocking and Part Commonality," INFORMS Annual Meeting, Pittsburgh, PA.
69. M.F. Candas, and E. Kutanoglu (2006) "Integrated Logistics Network Design and Inventory Management in SPL for Customer-Centric Service Levels," INFORMS Annual Meeting, Pittsburgh, PA.
70. I.M. Iyooob, and E. Kutanoglu (2006) "Integrated Logistics Network Design and Inventory Stocking with Customer-Dedicated Facilities," INFORMS Annual Meeting, Pittsburgh, PA.
71. M.F. Candas, and E. Kutanoglu (2006) "Integrated Logistics Network Design and Inventory Management in Service Parts Logistics," Fifth Annual Florida Supply Chain Conference, Gainesville, FL. (Presentation given by M.F. Candas as finalist for the Dissertation Support Award organized by Supply Chain and Logistics Engineering Center at the University of Florida).
72. F. Tanrisever, and E. Kutanoglu (2005) "Job Formation and Scheduling in Semiconductor Manufacturing," INFORMS Annual Meeting, San Francisco, CA.
73. Y. Cai, E. Kutanoglu, and J.J. Hasenbein (2005) "Optimization-based Semiconductor Manufacturing Scheduling," INFORMS Annual Meeting, San Francisco, CA.
74. B. Bregenzler, E. Kutanoglu, J.J. Hasenbein, and S.J. Qin (2005) "Scheduling Practice in Semiconductor Manufacturing: Results of a Comprehensive Survey," INFORMS Annual Meeting, San Francisco, CA.
75. V. Jeet, E. Kutanoglu, and A. Partani (2005) "Solution Techniques of an Integrated Location, Allocation and Inventory Model," INFORMS Annual Meeting, San Francisco, CA.
76. E. Kutanoglu and F. Tanrisever (2005) "Forming and Scheduling Jobs with Order Weights in Semiconductor Manufacturing," *2nd Multidisciplinary International Conference on Scheduling: Theory and Applications*, MISTA 2005, New York, NY.
77. J. Fowler, E. Kutanoglu, and S.J. Mason (2005) "Multiple Orders per Job Scheduling Problems," *2nd Multidisciplinary International Conference on Scheduling: Theory and Applications*, MISTA 2005, New York, NY.
78. S.J. Mason, E. Kutanoglu, J.W. Fowler (2005) "Manufacturing and Logistics Applications of Multiple Orders Per Job Scheduling," *Industrial Engineering Research Conference*, IIE, Atlanta, GA.
79. V. Jeet and E. Kutanoglu (2005) "Logistics Network Design with Inventory Stocking, Time-based Service Allocation, and Part Commonality," Fourth Annual Florida Supply Chain Conference, Cocoa Beach, FL. (Presentation given by V. Jeet to accept his First Prize in the Dissertation Support Award organized by Supply Chain and Logistics Engineering Center at the University of Florida).
80. M.F. Candas and E. Kutanoglu (2004) "Considering Inventory in Service Parts Logistics Network Design Problems with Time-based Service Constraints," INFORMS Annual Meeting, Denver, CO.
81. V. Jeet and E. Kutanoglu (2004) "Effects of Part-commonality in Integrated Service Parts Logistics Network Design," INFORMS Annual Meeting, Denver, CO.
82. E. Kutanoglu, J.W. Whitaker, and W. Barnes (2004) "Multi-Echelon Logistics Network Design with Time-Based Service Coverage Constraints," INFORMS Annual Meeting, Denver, CO.
83. E. Kutanoglu and F. Tanrisever (2004) "Job Formation and Scheduling Problem with Capacitated Containers," INFORMS Annual Meeting, Denver, CO.

84. **E. Kutanoglu** and S.D. Wu (2002) "Distributed Scheduling, Mechanism Design, and Optimization," INFORMS Annual Meeting, San Jose, CA.
85. **E. Kutanoglu** (2002) "Analysis of Multi-dimensional Coordination Problems in Service Parts Logistics," Invited Talk, INFORMS Austin Professional Chapter Seminar, Austin, TX.
86. **E. Kutanoglu** (2002) "Analysis of Multi-dimensional Coordination Problems in Service Parts Logistics," Invited Talk, Graduate Seminar Series, Bilkent University, Ankara, Turkey.
87. **E. Kutanoglu** (2002) "Analysis of Multi-dimensional Coordination Problems in Service Parts Logistics," Invited Talk, Graduate Seminar Series, The University of Texas at Austin.
88. **E. Kutanoglu** and S.K. Lee (2001) "Inventory Management with Location Interactions in Service Parts Supply Chains," INFORMS Annual Meeting, Miami Beach, FL, November 2001.
89. **E. Kutanoglu** (2001) "Distributed Resource Scheduling via Complex Auctions," INFORMS International Meeting, Maui, Hawaii.
90. **E. Kutanoglu**, C.R. Cassady and S.J. Mason (2001) "An Analysis of Integrating Production Scheduling and Preventive Maintenance Planning Decisions," INFORMS International Meeting, Maui, Hawaii.
91. C. Ma, **E. Kutanoglu**, and M.C. Booth (2000) "Customer Delivery Time Sensitive Inventory Network Design," INFORMS Fall Meeting, San Antonio, TX.
92. D. Tjokroamidjojo, **E. Kutanoglu**, and G.D. Taylor (2000) "Efficient and Regularized Routing/Dispatching in a Terminal City Network," INFORMS Fall Meeting, San Antonio, TX.
93. **E. Kutanoglu**, M.H. Cole, and S.T. Choong (2000) "Empty Container Management for Container-on-Barge Transportation," INFORMS Fall Meeting, San Antonio, TX.
94. **E. Kutanoglu**, and W. Oon (2000) "Design of Multi-Echelon Distribution Networks with Service Level Constraints," INFORMS Fall Meeting, San Antonio, TX.
95. **E. Kutanoglu** (2000) "Modeling and Analysis of Transportation Flows Created by E-commerce Transactions," Mack-Blackwell Transportation Center Board Meeting, Fayetteville, AR.
96. **E. Kutanoglu** (2000) "Improving Schedule Robustness via Stochastic Analysis and Dynamic Adaptation," Invited talk, Graduate Seminar Series, Bilkent University, Ankara, Turkey.
97. **E. Kutanoglu** and S.D. Wu (2000) "Incentive Compatible Distributed Scheduling," 21st National Operations Research and Industrial Engineering Conference, Fagamusta, Cyprus.
98. **E. Kutanoglu** and S.D. Wu (1999) "Proactive Equilibrium for Distributed Job Shop Scheduling", INFORMS Fall Meeting, Philadelphia, PA.
99. **E. Kutanoglu** and S.D. Wu (1999) "Improving Schedule Robustness via Stochastic Analysis and Dynamic Adaptation", INFORMS Spring Meeting, Cincinnati, OH.
100. **E. Kutanoglu** (1999) "Distributed Resource Scheduling: Optimization Models, Equilibrium Conditions, and Incentive Compatible Mechanisms," Graduate Seminar Series, Department of Mechanical Engineering, University of Minnesota.
101. **E. Kutanoglu** (1999) "Distributed Resource Scheduling: Optimization Models, Equilibrium Conditions, and Incentive Compatible Mechanisms," Graduate Seminar Series, Department of Industrial Engineering, University of Arkansas.

102. **E. Kutanoglu** (1999) "Distributed Resource Scheduling: Optimization Models, Equilibrium Conditions, and Incentive Compatible Mechanisms," Graduate Seminar Series, Department of Industrial and Manufacturing Systems Engineering, Lehigh University.
103. **E. Kutanoglu** and S.D. Wu (1998) "Distributed Resource Scheduling Using a Lagrangean-based Decomposition," INFORMS Spring Meeting, Montreal, Canada.
104. S.D. Wu and **E. Kutanoglu** (1997) "Distributed Resource Scheduling Using Auction and Lagrangean Relaxation," INFORMS Fall Meeting, Dallas, TX.
105. **E. Kutanoglu**, J. Bustos and K. Zeithammer (1996) "Simulation Modeling at Bethforge, Inc.," Engineering Research for Industry Symposium, Society of Manufacturing Engineers, Lehigh University, Bethlehem, PA.
106. **E. Kutanoglu** and I. Sabuncuoglu (1994) "Reactive Scheduling Policies against Machine Breakdowns in Dynamic Job Shops," 16th National OR/IE Conference, Ankara, Turkey (in Turkish).
107. **E. Kutanoglu** and I. Sabuncuoglu (1994) "Computational Testing of Weighted Tardiness Priority Rules in Dynamic Job Shop Setting," 16th National OR/IE Conference, Ankara, Turkey (in Turkish).
108. V. Verter, A. Atamturk, S. Hosten, **E. Kutanoglu** (1991) "Practical Studies in Mainstream OR Journals in 1985–1991," 14th National OR/IE Conference, Istanbul, Turkey (in Turkish).

TEACHING INTERESTS

Operations Research	Integer Programming
Production and Inventory Control	Logistics Optimization
Supply Chain Management	Operations Management
Production Planning and Scheduling	Simulation
Engineering Finance	Production Engineering Management

TEACHING EXPERIENCE

The University of Texas at Austin

ORI397 Logistics Analytics Spring 2009, Spring 2012, Fall 2016, Fall 2022
 Graduate level large scale modeling and optimization for logistics and supply chain applications, including transportation, energy, humanitarian and sustainable logistics.

ORI391Q.4 Integer Programming

Fall 2004, 2005, 2006, 2009, Spring 2011, 2016, 2017, 2018, 2021
 Graduate level integer programming and combinatorial optimization. Core course in the Graduate Program in Operations Research and Industrial Engineering.

ORI390R.14 Scheduling Theory and Applications

Fall 2005, 2006, 2007, 2008, 2017, Spring 2011, 2013
 Graduate level scheduling course with emphasis on mathematical models and their applications.

ORI390Q.2 - Production and Inventory Control

Fall 2002, 2003, 2004, 2011, 2012, 2015, 2018, 2019, 2021, 2023, Spring 2006, 2007, 2008, 2010
 Graduate level production planning and inventory management course.

ORI397 - Emerging Topics in ORIE

Fall 2017, 2019, Spring 2022
 Organize graduate seminars with invited speakers, both academic and practitioners of ORIE, based on analysis of papers by speakers.

ME397 - Modeling and Analysis of Manufacturing and Service Enterprises Spring 2003
Specialized course for graduate students in the Manufacturing and Decisions Systems Engineering program.

ME353 - Engineering Finance
Fall 2003, 2015, 2016, 2018, 2022, Spring 2005, 2019, 2021, Summer 2012, 2013, 2016, 2017, 2018, 2019, 2020
Engineering economic analysis for junior and senior undergraduate engineering students.

ME 366L - Operations Research Models Fall 2008
Technical elective course for senior undergraduate engineering students on operations research models (linear programming, network optimization, integer programming, stochastic and queueing models).

ME375K - Production Engineering Management Spring 2004, 2008, 2010, 2011, 2012, 2013, 2018, 2019
Technical elective course for senior undergraduate engineering students on production planning, scheduling, inventory control and production line analysis.

ME375K - Simulation Modeling Spring 2020, 2021, 2022, 2023, 2024
Technical elective course for senior undergraduate engineering students on computer simulation modeling of engineering systems.

Abdullah Gul University

IE511 - Modeling and Optimization Spring 2014, Fall 2014

University of Arkansas

INEG5623 - Analysis of Inventory Systems Spring 2001, 2002
INEG5633 - Integer Programming and Combinatorial Analysis Fall 2001
INEG5843 - Sequencing and Scheduling Fall 2000
INEG4553 - Production Planning and Control Spring 2000, 2001, 2002
INEG 4333 - Industrial Statistics Fall 1999, 2000, 2001

Lehigh University, Bethlehem, PA

Instructor, IE122 - Software Tools Spring 1998

COMMITTEE INVOLVEMENT and SERVICE

The University of Texas at Austin

- Institutional Assessment Faculty, Graduate Program in Operations Research and Industrial Engineering, 2015 - Present.
- Co-op Program Faculty Advisor, Mechanical Engineering Department, 2017 - Present.
- Industrial Engineering and Management Technical Track Faculty Mentor, Mechanical Engineering Department, 2017 - Present.
- Admissions Advisor, Graduate Program in Operations Research and Industrial Engineering, 2015 - Present.
- Graduate Student Recruiter, Graduate Program in Operations Research and Industrial Engineering, 2004 - 2010.
- Member, Graduate Student Recruitment Committee, Department of Mechanical Engineering, 2002 - 2010.
- Chair, Web-based Application Subcommittee, Graduate Student Recruitment Committee, Department of Mechanical Engineering, 2007 - 2008.

- Faculty Advisor, Society of Manufacturing Engineers, UT Austin Student Chapter, 2003 - 2011.
- Member, Graduate Studies Committee, ORIE Graduate Program, 2002 - Present.
- Member, Graduate Studies Committee, ME Graduate Program, 2002 - Present.
- Assistant Graduate Advisor, M.S. Program in Manufacturing Systems Engineering, 2002 - 2010.
- Minority Liaison Officer, M.S. Program in Manufacturing Systems Engineering, 2002 - 2010.
- Organizer and Coordinator, ORIE Graduate Seminar Series, Spring 2004, Spring 2005, Spring 2006, Fall 2008.
- Member, Graduate School Outstanding Thesis/Report Award Committee, 2006.
- Voting Member, UT Austin Faculty Council, 2008 - 2010.
- Member, UT Austin Research Policy Committee, 2008 - 2010.
- Member, UT Austin Libraries Committee, 2008 - 2012.

University of Arkansas

- Chair of Ad-hoc Web Committee, 2001-2002, Department of Industrial Engineering
- Member of Equipment Committee, 2001-2002, Department of Industrial Engineering
- Member of Scholarship Committee, 1999-2000, Department of Industrial Engineering
- Member of Graduate Studies Committee, 2000-2002, Industrial Engineering
- Member of College Computer Committee, 2000-2002, College of Engineering
- Member of College Web Committee, 2001-2002, College of Engineering

EDITORIAL ACTIVITIES and REFEREEING

- Editorial Board Member and Associate Editor, *Frontiers in Future Transportation*, 2022 - Present.
- NSF Panel Reviewer, 2004, 2005, 2006, 2009, 2010, 2022.
- Member of the Editorial Board, *IIE Transactions*, 2006-2009.
- Associate Editor, *OMEGA - The International Journal of Management Science*, 2009 - 2010.
- Technical Reviewer for Journals and Conferences
 - Operations Research
 - Management Science
 - Transportation Science
 - IIE/IISE Transactions
 - Naval Research Logistics
 - Computers and Operations Research
 - European Journal of Operational Research
 - International Journal of Production Research
 - International Journal of Production Economics
 - Science of the Total Environment
 - Applied Energy
 - Frontiers in Energy
 - Journal of Energy Storage
 - Energy Policy
 - Computers and Industrial Engineering
 - OMEGA, The International Journal of Management Science
 - Transportation Research Part E: Logistics and Transportation Review

CONFERENCE ORGANIZATION

- Track Co-chair, Logistics and Supply Chain Track, IISE Industrial and Systems Engineering Conference and Expo, 2020.
- Track Co-chair, Operations Research Track, IIE Industrial Engineering Research Conference, Miami, FL, 2009.
- Track Chair, Logistics and Inventory Track, IIE Industrial Engineering Research Conference, Vancouver, Canada, 2008.
- Track Co-Chair, Section on Location Analysis Cluster, INFORMS Annual Meeting, Phoenix, AZ, 2012.
- Track Chair, Section on Location Analysis Cluster, INFORMS Annual Meeting, Charlotte, NC, 2011.
- Facilitator/Panelist for “Facilities, Supply Chain and External Factors,” Change Management Roundtable, Advanced Manufacturing Center, May 2007.
- Program Committee Member, 3rd Multidisciplinary International Conference on Scheduling: Theory and Applications (MISTA), Paris, France, 2007, Dublin, Ireland, 2009, and Phoenix, AZ, 2011.
- Panelist, New Faculty Colloquium, IIE Industrial Engineering Research Conference, Atlanta, 2005.
- Panelist, Doctoral Student Colloquium, IIE Industrial Engineering Research Conference, Houston, 2004.
- Invited Track Organizer, Operations Research Track, IIE Industrial Engineering Research Conference, Houston 2004.
- Invited Session Organizer and Chair, INFORMS Meeting, Montreal 1998, San Antonio 2000, Miami 2001, San Jose 2002, Denver 2004, San Francisco 2005, Pittsburgh 2006, Washington DC 2008, San Diego 2009, Austin 2010, Charlotte, 2011.
- Invited Session Organizer and Chair, IIE Industrial Engineering Research Conference, Cleveland 2000, Dallas 2001, Portland 2003, Houston 2004, Orlando 2006, Nashville 2007, Vancouver, Canada 2008, Miami 2009, Orlando 2012.
- Invited Session Organizer and Chair, INFORMS International Meeting, Puerto Rico, 2007.
- Session Chair, IIE Industrial Engineering Research Conference, Orlando 2002.

MEMBERSHIPS and PROFESSIONAL SOCIETY SERVICES

- *Senior Member*, Institute of Industrial and Systems Engineers (IISE).
- *President*, OR Division, IIE (Term 2008-2009, President-Elect 2007-2008)
- *Director*, OR Division, IIE (Term 2005-2007).
- *Member*, Institute for Operations Research and Management Sciences (INFORMS).
- *President*, Section on Location Analysis (SOLA), INFORMS (Term: 2012-2014, Vice-President: 2010-2012, Secretary: 2008-2010, Board Member: 2006-2008).

PREVIOUS ACADEMIC EXPERIENCE

Research Assistant January 1995 – February 1999
 Manufacturing Logistics Institute, Lehigh University, Bethlehem, PA

- Member of a research team from Lehigh University and the University of Pennsylvania on a NSF funded project “Distributed Decision Framework Integrating Manufacturing Planning and Multiple Supply Chain Management.” Industry partners: Lucent Technologies and Ford Motor Company.

Research Assistant 1992 – 1995
 Bilkent University, Ankara, Turkey
 Developed and tested simulation-based scheduling algorithms for dynamic and stochastic manufacturing systems. Investigated different reactive scheduling policies.

**PROFESSIONAL
EXPERIENCE**

Consultant for Caterpillar, Inc. January 2012
 Provide modeling, optimization and engineering support for the engine assembly plant inbound transportation logistics.

Consultant for Freescale Semiconductor (NXP) July 2006 – November 2008
 Provide modeling, optimization, and engineering support for the Industrial Engineering and Computer Integrated Manufacturing teams at Freescale, focusing on diffusion area batching and scheduling.

Short Course on Introduction to Supply Chain Optimization June 2008
 Develop and teach a short course on supply chain optimization for the attendees of the Engineering Management Conference organized by the Center for Lifelong Engineering Education (CLEE) in Austin, TX.

Consultant for IBM August 1999 – August 2002
 Provide engineering and development support for Service Parts Solutions Group, Product Support/Global Services Division of IBM. Develop OR models for supply chain optimization.

Short Course on Introduction to Supply Chain Optimization May 2002
 Teach a short course on supply chain optimization for attendees of the Center for Engineering Logistics and Distribution (CELDi) Spring Meeting in Fayetteville, AR.

Consultant for Tyson Foods Fall 2000 – August 2002
 Teach a 2-day short course on Forecasting. Train planners and forecasting personnel at Tyson Foods as a part of a 3-person team.

OR Analyst and Strategy Development Engineer February 1999 – August 1999
 Service Parts Solutions, PSS / Global Services Division, IBM, Mechanicsburg, PA
 Assist in developing a strategic decision support tool based on an OR model for the multi-echelon network design, inventory stocking and distribution decisions. Develop scalable techniques for large-scale OR models for network design and inventory stocking problems, and implement the first-phase of a long-term restructuring project.

**PROFESSIONAL
DEVELOPMENT**

Workshops Participated

- Invited Speaker, Third Annual Workshop on Supply Chain and Logistics, Bilkent University, Ankara, Turkey, June 2009.
- Change Management Roundtable, Advanced Manufacturing Center, May 2007.
- New Faculty Teaching and Orientation Seminar, Austin, The University of Texas at Austin, August 2002.
- Teaching Effectiveness Colloquium, INFORMS Meeting, Miami Beach, November 2001.
- Institute of Mathematics and its Applications (IMA) Workshop, Mathematics of the Internet: E-Auction and Markets, University of Minnesota, December 2000.
- NSF Workshop on Manufacturing Logistics, Lehigh University, 1997.

Technical Conferences Attended

- IISE Industrial and Systems Engineering Annual Conference and Expo, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2012, 2019, 2020, 2021.

- INFORMS International Meeting, Hawaii, 2001, Puerto Rico, 2007.
- INFORMS Annual Meeting, 1997, 1998, 1999, 2000, 2001, 2002, 2004, 2005, 2006, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022.
- POMS Annual Conference, 2007.
- MISTA Conference, 2005.