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Education

Doctor of Philosophy, Industrial Engineering, Arizona State University, 2000
Master of Science in Engineering, Operations Research, The University of Texas at Austin, 1995
Bachelor of Science in Mechanical Engineering with Honors, The University of Texas at Austin, 1993

Academic Experience

Associate Professor with Tenure, Department of Industrial Engineering, University of Arkansas, July 2005 to Present
Adjunct Associate Professor, Department of Industrial Engineering, Clemson University, June 2009 to Present
Associate Department Head, Department of Industrial Engineering, University of Arkansas, August 2004 to Present
Assistant Professor, Department of Industrial Engineering, University of Arkansas, August 2000 to June 2005

Industry and Consulting Experience

Senior Industrial Engineering, Abbie Gregg, Inc., Tempe, AZ, April 1997 to July 2000
Modeling Engineering, Wright Williams & Kelly, Phoenix, AZ, August 1998 to May 1999
Operational Modeling Engineering, Advanced Micro Devices, Austin, TX, May 1995 to March 1997
Operational Modeling Consultant, Sematech, Austin, TX, January 1993 to May 1995
Industrial engineering and semiconductor manufacturing consultant to over 25 companies and organizations on four continents

Awards and Recognition

Department of Industrial Engineering, University of Arkansas
AAIE Outstanding Faculty Member, 2003-2004, 2007-2008
Outstanding Researcher, 2001-2002, 2002-2003, 2003-2004
Outstanding Service to Students, 2004-2005
Outstanding Teacher, 2005-2006, 2006-2007, 2008-2009
College of Engineering, University of Arkansas
Outstanding Advisor, 2004-2005
University of Arkansas
Finalist, Dr. John and Mrs. Lois Imhoff Award for Outstanding Teaching and Student Mentoring, 2009
Faculty Gold Medal, Office of Post-Graduate Fellowships, 2009
Outstanding Mentor, Office of Post-Graduate Fellowships, 2007, 2008, 2009
Citation of Appreciation, Faculty Senate, 2003-2004
Best Technical Paper, Quality Control and Reliability Engineering Track, Industrial Engineering Research Conference, Houston, Texas, 2004.

Primary Research and Teaching Interests

Scheduling and planning in manufacturing, public education, and service industries

Emphasis in semiconductor manufacturing

Large-scale systems modeling, optimization, and algorithms

Emphasis in transportation and supply chain logistics

Journal Articles

1. Jampani, J. *, Mason, S.J., Column Generation Heuristic for Complex Job Shop Multiple Orders per Job Scheduling, *Computers & Industrial Engineering*, accepted for publication.
2. Mason, S.J., Meller, R.D., Thomas, L.M. *, Pazour, J.A. *, Root, S.E., Survey of Hospital Pharmacy Directors: Assessment of the Current State of Unit-Dose Acquisition, *Journal of Pharmacy Technology*, accepted for publication.
3. Meller, R.D., Pazour, J.A.*, Thomas, L.M.*, Mason, S.J., Root, S.E., Churchill, W.W., 2009, The Case for Third-Party Repackaging in Hospital Pharmacy Unit-Dose Acquisition, *American Journal of Health-System Pharmacy*, accepted for publication.
4. Magableh, G.M. *, Mason, S.J., 2009, Minimizing earliness and tardiness on parallel machines with sequence-dependent setups, *International Journal of Operations Research*, accepted for publication.
5. Mason, S.J., Jin, S. *, Jampani, J. *, 2009, A moving block heuristic to minimize earliness and tardiness costs on parallel machines, *International Journal of Production Research*, 47 (19), 5377-5390.
6. Magableh, G.M. *, Mason, S.J., 2009, An integrated supply chain model with dynamic flow and replenishment requirements, *Journal of Simulation*, 3, 84-94.
7. Jia, J. *, Mason, S.J., 2009, Semiconductor manufacturing scheduling of jobs containing multiple orders on identical parallel machines, *International Journal of Production Research*, 47 (10), 2565-2585.
8. Pfund, M.E., Balasubramanian, H. *, Fowler, J.W., Mason, S.J., Rose, O., 2008, A multi-criteria approach for scheduling semiconductor wafer fabrication facilities, *Journal of Scheduling*, 11, 29-47.
9. Erramilli, V. *, Mason, S.J., 2008, Multiple orders per job batch scheduling with incompatible jobs, *Annals of Operations Research*, 159, 245-260.
10. Jampani, J. *, Mason, S.J., 2008, Column generation heuristics for multiple machine, multiple orders per job scheduling problems, *Annals of Operations Research*, 159, 261-273.
11. Kurz, M.B., Mason, S.J., 2008, Minimizing total weighted tardiness on a batch-processing machine with incompatible job families and job ready times, *International Journal of Production Research*, 46 (1), 131-151.
12. Cakici, E. *, Jia, J. *, Yu, P. *, Mason, S.J., Cassady, C.R., Pohl, L.M. *, Lachowsky, A.J. *, 2007, Cellar tank piping network analysis at E. & J. Gallo Winery, *Journal of Wine Research*, 17 (3), 145-160.
13. Cakici, E. *, Mason, S.J., 2007, Parallel machine scheduling subject to auxiliary resource constraints, *Production Planning & Control*, 18 (3), 217-225.
14. Mason, S.J., Kurz, M.E., Pohl, L.M. *, Fowler, J.W., Pfund, M.E., 2007, Random keys implementation of NSGA-II for semiconductor manufacturing scheduling, *International Journal of Information Technology and Intelligent Computing*, 2 (3).
15. Swaminathan, R. *, Pfund, M.E., Fowler, J.W., Mason, S.J., Keha, A., 2007, Impact of permutation enforcement when minimizing total weighted tardiness in dynamic flowshops with uncertain processing times, *Computers & Operations Research*, 34 (10), 3055-3068.
16. Erramilli, V. *, Mason, S.J., 2006, Multiple orders per job compatible batch scheduling, *IEEE Transactions on Electronics Packaging Manufacturing*, 29 (4), 285-296.

17. Gupta, J.N.D., Ruiz, R., Fowler, J.W., Mason, S.J., 2006, Operational planning and control of semiconductor wafer production, *Production Planning & Control*, 17 (7), 639-647.
18. Yeung, T.G. *, Mason, S.J., 2006, Using real options analysis to value reoptimization options in the Shifting Bottleneck heuristic, *Naval Research Logistics*, 53 (4), 285-297.
19. Yeung, T.G. *, Mason, S.J., Chimka, J.R., Greiner, M.A., 2006, Recommendations for automatic identification technology in the Air Force supply chain, *Air Force Journal of Logistics*, 30 (3), 80-83.
20. Mason, S.J., Jin, S. *, Jampani, J. *, 2005, A moving block heuristic for minimizing earliness and tardiness on a single machine with unrestrictive common due dates, *Journal of Manufacturing Systems*, 24 (4), 328-338.
21. McGee, J.B. *, Rossetti, M.D., Mason, S.J., 2005, Quantifying the effect of transportation practices in military supply chains, *Journal of Defense Modeling and Simulation*, 2 (2), 87-100.
22. Qu, P. *, Mason, S.J., 2005, Metaheuristic scheduling of 300mm jobs containing multiple orders, *IEEE Transactions on Semiconductor Manufacturing*, 18 (4), 633-643.
23. Mason, S.J., Fowler, J.W., Carlyle, W.M., Montgomery, D.C., 2005, Heuristics for minimizing total weighted tardiness in complex job shops, *International Journal of Production Research*, 43 (10), 1943-1963.
24. Tovia, F. *, Mason, S.J., Ramasami, B. *, 2004, A scheduling heuristic for maximizing wirebinder throughput, *IEEE Transactions on Electronics Packaging Manufacturing*, 27 (2), 145-150.
25. Mason, S.J., Jin, S. *, Wessels, C. *, 2004, Rescheduling strategies for minimizing total weighted tardiness in complex job shops, *International Journal of Production Research*, 42 (3), 613-628.
26. Mason, S.J., Oey, K. *, 2003, Scheduling complex job shops using disjunctive graphs: a cycle elimination procedure, *International Journal of Production Research*, 41 (5), 981-994.
27. Mason, S.J., Ribera, P.M. *, Farris, J.A. *, Kirk, R.G., 2003, Integrating the warehousing and transportation functions of the supply chain, *Transportation Research Part E: Logistics and Transportation Review*, 39 (2), 141-159.
28. Fowler, J.W., Hogg, G.L., Mason, S.J., 2002, Workload control in the semiconductor industry, *Production Planning & Control*, 13 (7), 568-578.
29. Mason, S.J., Cole, M.H., Ulrey, B.T. *, Yan, L., 2002, Improving electronics manufacturing supply chain agility through outsourcing, *International Journal of Physical Distribution and Logistics Management*, 32 (7), 610-620.
30. Mason, S.J., Fowler, J.W., Carlyle, W.M., 2002, A modified shifting bottleneck heuristic for minimizing total weighted tardiness in complex job shops, *Journal of Scheduling*, 5 (3), 247-262.

* Student co-author

Manuscripts Under Review or Being Revised

1. Mason, S.J., Chen, J.S., Optimization models for scheduling multiple orders per job on parallel machines, under review at *Journal of Scheduling*.
2. Mason, S.J., Chen, J.-S., Scheduling Multiple Orders per Job in a Single Machine to Minimize Total Completion Time, under review at *European Journal of Operational Research*.
3. Unlu, Y. *, Mason, S.J., Evaluation of Mixed Integer Programming Formulations for Non-Preemptive Parallel Machine Scheduling Problems, under review at *Computers & Industrial Engineering*.
4. Iyoob, I. *, Pohl, E.A., Mason, S.J., Brazhkina, M. *, Measuring and Controlling the Impact of Lane Volume Variability in Truckload Transportation, under review at *Transportation Research Part A: Policy and Practice*.
5. Jampani, J. *, Pohl, E.A., Mason, S.J., Moench, L., Integrated Heuristics for Scheduling Multiple Order Jobs in a Complex Job Shop, under review at *International Journal of Metaheuristics*.

6. Al-Otaibi, M.* , Kurz, M.E., Mason, S.J., Analysis of a Tri-Criteria Disaster Relief Scheduling Problem with Precedence Constraints, under review at *Computers & Industrial Engineering*.
7. Cakici, E.* , Mason, S.J., Geismar, H.N., Fowler, J.W., Scheduling an Integrated Supply Chain System, being revised for *IIE Transactions on Scheduling and Logistics*.
8. Mason, S.J., Fowler, J.W., Qu, P.* , Long*, T.C., Kutanoglu, E., The single machine multiple orders per job scheduling problem, being revised for *IIE Transactions on Scheduling and Logistics*.
9. Chen, J.S., Mason, S.J., Optimization models for multi-stage scheduling problem with multiple orders per job, under review at *Mathematical and Computer Modelling*.

* Student co-author

Working Papers

1. Cakici, E.* , Mason, S.J., Fowler, J.W., Geismar, H.N., Batch Loading and Scheduling on Identical Parallel Machines with Incompatible Job Families and Release Times, to be submitted to *Naval Research Logistics*.
2. Cakici, E.* , Kurz, M.E., Mason, S.J., A Multi-Objective Supply Chain Scheduling Problem, to be submitted to *International Journal of Metaheuristics*.
3. Moench, L., Zimmermann, J.* , Mason, S.J., Fowler, J.W., Multiple Orders per Job Formation and Release Strategies in Large Scale Wafer Fabs: A Simulation Study, to be submitted to *IEEE Transactions on Semiconductor Manufacturing*.
4. Alotaibi, M.* , Mason, S.J., Fowler, J.W., Scheduling Models and Heuristics for Disaster-Relief Operations, to be submitted to *OR Spectrum*.
5. Montgomery, W.* , Mason, S.J., Pohl, E.A., Root, S.E., Military Troop Leave Scheduling During Wartime, to be submitted to *Military Operations Research*.
6. Mönch, L., Fowler, J.W., Dauzère-Pérès, S., Mason, S.J., Rose, O., Scheduling Semiconductor Manufacturing Operations: Problems, Solution Techniques, and Future Challenges, to be submitted to *Journal of Scheduling*.
7. Saka, B.* , Mason, S.J., Tractor to Trailer Assignment and Routing in Less-than-Truckload Trucking.
8. Jia, J.* , Mason, S.J., Kurz, M.B., An Analysis of Forced Transfer Busing for Elementary School Students.

* Student co-author

Proceedings Publishing

1. Mason, S.J., Hill, R.R., Moench, L., Rose, O., Jefferson, T., Fowler, J.W. (eds.), 2008, *Proceedings of the 2008 Winter Simulation Conference*, Miami, Florida.
2. Fowler, J.W., Mason, S.J. (eds.), 2008, *Proceedings of the 2008 Industrial Engineering Research Conference*, Vancouver, British Columbia.

Book Chapters

1. Pfund, M.E., Mason, S.J., Fowler, J.W., 2006, Semiconductor manufacturing scheduling and dispatching, Chapter 9 in *Handbook of Production Scheduling*, Herrmann, J.W. (ed.), Springer, New York, 213-241.
2. Collins, T.R., Mason, S.J., Nachtmann, H.L., 2006, Cost evaluation and analysis, Chapter 17 in *Advanced Electronic Packaging, 2nd Edition*, Ulrich, R.K., Brown, W.D. (eds.), John Wiley & Sons, New York, 691-724.

3. Malstrom, E.M., Mason, S.J., 2001, Scheduling and inventory control of manufacturing systems, Maynard's Industrial Engineering Handbook, 5th Edition, McGraw-Hill, New York, 9.27-9.47.

Refereed Conference Papers

1. Bogle, B.M.*, Mason, S.J., 2009, Optimizing Demand Fulfillment from Test Bins, Proceedings of the 2009 Winter Simulation Conference, *accepted for publication*.
2. Mönch, L., Zimmerman, J., Fowler, J.W., Mason, S.J., 2009, A Simulation-Based and an Analytic Modeling Approach to Calculate an Appropriate Number of FOUPs in Wafer Fabs, Proceedings of the 2009 INFORMS Simulation Society Research Workshop, L. H. Lee, M. E. Kuhl, J. W. Fowler and S. Robinson, eds., Coventry, England, 57-61.
3. Mönch, L., Fowler, J.W., Dauzère-Pérès, S., Mason, S.J., Rose, O., 2009, Scheduling Semiconductor Manufacturing Operations: Problems, Solution Techniques, and Future Challenges, 4th Multidisciplinary International Conference on Scheduling: Theory & Applications, Dublin, Ireland, 192-201.
4. McCallion, E.A., Taylor, N.D., Mason, S.J., Pohl, E.A., 2009, Analysis of Transportation Network Design Strategies for Forced Transfer Busing, Industrial Engineering Research Conference, Miami, Florida, 1321-1326.
5. Montgomery, W., Mason, S.J., 2009, Mission Assignment and Leave Block Scheduling: Maintaining Readiness and Sustainment of Military Troops During War-Time, Industrial Engineering Research Conference, Miami, Florida, 2073-2078.
6. Zimmerman, J.*, Moench, L., Mason, S.J., Fowler, J.W., 2008, Determining an Appropriate Number of FOUPs in Semiconductor Wafer Fabrication Facilities, Proceedings of the 2008 Winter Simulation Conference, 2164-2170.
7. Ingalls, R.G., Hunsaker, B., Mason, S.J., Needy, K.L., Norman, B.A., Cornejo, M.*, Methapatara, C.*, Sittivijan, P.*, Claypool, E.*, Gokhan, N.M.*, 2008, Integrating design for supply chain research into a graduate supply chain modeling course—a collaborative approach, 2008 American Society for Engineering Education Annual Conference Proceedings. Pittsburgh, Pennsylvania.
8. Ferguson, J.A.*, Mason, S.J., 2008, Analysis of a Circuit Routing Strategy for Forced Transfer Busing, Industrial Engineering Research Conference, Vancouver, British Columbia, 1556-1561.
9. Medal, H.*, Gade, D.*, Mason, S.J., Meller, R.D., Pohl, E.A., 2008, Pickup and Delivery of Poultry in Rural Networks, Industrial Engineering Research Conference, Vancouver, British Columbia, 1897-1902.
10. Needy, K.L., Ingalls, R.G., Mason, S.J., Hunsaker, B., Norman, B.A., Gokhan, N.M.*, Cornejo, M.*, 2008, Design for Supply Chain - A Collaborative Research Project Between Institutions and Between Centers, Industrial Engineering Research Conference, Vancouver, British Columbia, 396-401.
11. Saka, B.*, Mason, S.J., 2008, Tractor and Trailer Routing in a Less Than Truckload Network, Industrial Engineering Research Conference, Vancouver, British Columbia, 703-708.
12. Saka, B.*, Mettenburg, D., Mason, S.J., 2008, Effective Freight Touring in Truckload Transportation, Industrial Engineering Research Conference, Vancouver, British Columbia, 709-714.
13. Unlu, Y.*, Mason, S.J., 2008, Comparison of Formulations for Non-Preemptive Parallel Machine Scheduling Problems, Industrial Engineering Research Conference, Vancouver, British Columbia, 1550-1555.
14. Jampani, J.*, Mason, S.J., 2007, Complex Job Shop Multiple Orders per Job Scheduling, 3rd Multidisciplinary International Conference on Scheduling: Theory & Applications, Paris, France, 225-233.
15. Li, W.*, Mason, S.J., 2007, Comparison of Simulation-Based Schedule Generation Methodologies for Semiconductor Manufacturing, Industrial Engineering Research Conference, Nashville, Tennessee.

16. Unlu, Y. *, Mason, S.J., 2007, Optimizing Tank Selection And Operations Scheduling At A Large Winery, Industrial Engineering Research Conference, Nashville, Tennessee.
17. Mason, S.J., Kurz, M.E., Pfund, M.E., Fowler, J.W., Pohl, L.M. *, 2007, Multi-Objective Semiconductor Manufacturing Scheduling: A Random Keys Implementation of NSGA-II, Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Scheduling (CI-Sched 2007), 159-164.
18. Magableh, G. *, Rossetti, M.D., Mason, S.J., 2005, Modeling and analysis of a generic cross-docking facility, Proceedings of the 2005 Winter Simulation Conference, 1613-1620.
19. Erramilli, V. *, Mason, S.J., 2005, Multiple orders per job batch scheduling on a single machine with incompatible jobs, 2nd Multidisciplinary International Conference on Scheduling: Theory & Applications, New York, New York.
20. Jampani, J. *, Mason, S.J., Erramilli, V. *, 2005, Multiple orders per job scheduling on a single machine using column generation, 2nd Multidisciplinary International Conference on Scheduling: Theory & Applications, New York, New York.
21. Pfund, M.E., Balasubramanian, H. *, Fowler, J.W., Mason, S.J., 2005, A bi-criteria approach to scheduling wafer fabrication facilities, 2nd Multidisciplinary International Conference on Scheduling: Theory & Applications, New York, New York.
22. Kutanoglu, E., Tanrisever, F. *, Mason, S.J., 2004, Forming and scheduling jobs from multiple orders with different attributes: a computational study of special cases, Industrial Engineering Research Conference, Houston, Texas.
23. Magableh, G. *, Mason, S.J., 2004, Transportation logistics applications of wireless data systems, Industrial Engineering Research Conference, Houston, Texas.
24. Qu, P. *, Mason, S.J., 2004, Solving the multiple orders per job scheduling problem with Tabu search, Industrial Engineering Research Conference, Houston, Texas.
25. Qu, P. *, Mason, S.J., Kutanoglu, E., Fowler, J.W., 2004, A heuristic for minimizing total weighted completion time on a single machine for the multiple orders per job scheduling problem, Industrial Engineering Research Conference, Houston, Texas.
26. Rainwater, C. *, Honeycutt, J. *, Cassady, C.R., Mason, S.J., 2004, Solving selective maintenance problems for fleets of systems, Industrial Engineering Research Conference, Houston, Texas.
27. Sophabmixay, K.J. *, Mason, S.J., Rossetti, M.D., 2004, Strategic optimization of a transportation distribution network, Industrial Engineering Research Conference, Houston, Texas.
28. Swaminathan, R. *, Fowler, J.W., Pfund, M.E., Mason, S.J., 2004, Minimizing total weighted tardiness in a dynamic flowshop with variable processing times, Industrial Engineering Research Conference, Houston, Texas.
29. Kutanoglu, E., Ling, R. *, Mason, S.J., 2003, Scaling-based algorithms for resource-constrained project scheduling problems, Industrial Engineering Research Conference, Portland, Oregon.
30. Magableh, G. *, Mason, S.J., 2003, Future applications of wireless data systems in transportation logistics, Industrial Engineering Research Conference, Portland, Oregon.
31. Magableh, G. *, Mason, S.J., 2003, Increased supply chain efficiencies through integration, Industrial Engineering Research Conference, Portland, Oregon.
32. Magableh, G. *, Mason, S.J., 2003, Minimizing weighted earliness/tardiness on parallel machines with sequence-dependent setups, Industrial Engineering Research Conference, Portland, Oregon.
33. Mason, S.J., Carlyle, W.M., Fowler, J.W., 2003, Improving MIP solver performance for scheduling complex job shops, Industrial Engineering Research Conference, Portland, Oregon.
34. Qu, P. *, Steinmiller, B. *, Mason, S.J., 2003, Incorporating automated material handling systems into a disjunctive graph for subsequent scheduling by a shifting bottleneck-based approach, Industrial Engineering Research Conference, Portland, Oregon.
35. Ramasami, B. *, Tovia, F. *, Mason, S.J., Potoradi, J., Boon, O.S., 2003, Mathematical programming approach for wire bonder scheduling, Industrial Engineering Research Conference, Portland, Oregon.

36. Fowler, J.W., Brown, S., Carlyle, W.M., Gel, E., Mason, S.J., Moench, L., Rose, O., Runger, G., Sturm, R., 2002, A modified shifting bottleneck heuristic for scheduling wafer fabrication facilities, International Conference on Flexible Automation and Intelligent Manufacturing, Dresden, Germany, 1231-1236.
37. Jin, S.* , Mason, S.J., 2002, Rescheduling strategies for complex job shops, International Conference on Modeling and Analysis of Semiconductor Manufacturing, Mackulak, G.T., Fowler, J.W., Schoemig, A. (eds.), 90-94.
38. Mason, S.J., Skinner, G.* , Qu, P.* , Jin, S.* , Wessels, C.* , Pfund, M., Fowler, J.W., Carlyle, W.M., Kim, B., 2002, Scheduling and rescheduling methodologies for wafer fabs, International Conference on Flexible Automation and Intelligent Manufacturing, Dresden, Germany, 1464-1471.
39. Potoradi, J., Boon, O.S., Mason, S.J., Fowler, J.W., Pfund, M.E., 2002, Using simulation based scheduling to maximize demand fulfillment in a semiconductor assembly facility, Proceedings of the 2002 Winter Simulation Conference, San Diego, CA, 1857-1861.
40. Qu, P.* , Mason, S.J., Kutanoglu, E., 2002, Scheduling jobs containing multiple orders, International Conference on Modeling and Analysis of Semiconductor Manufacturing, Mackulak, G.T., Fowler, J.W., Schoemig, A. (eds.), 264-269.
41. Ramasami, B.* , Mason, S.J., Cole, M.H., Yan, L., Hargroder, M., 2002, Issues in Inventory Modeling in a Virtual Supply Chain, Industrial Engineering Research Conference, Orlando, Florida
42. Rose, O., Fowler, J., Carlyle, M., Runger, G., Mason, S., 2002, Ein neuer Ansatz fuer die Ressourceneinsatzplanung und Fabriksteuerung von Halbleiterfertigungsanlagen, Proceeding of the 10th ASIM-Fachtagung Simulation in Produktion und Logistik.
43. Skinner, G.E.* , Mason, S.J., 2002, A genetic algorithm for scheduling parallel batch processing machines, International Conference on Modeling and Analysis of Semiconductor Manufacturing, Mackulak, G.T., Fowler, J.W., Schoemig, A. (eds.), 270-275.
44. Hau, T.* , Mason, S.J., Yan, L., Cole, M.H., 2001, Contract manufacturing's impact on the electronics manufacturing supply chain, Industrial Engineering Research Conference, Dallas, Texas.
45. Mason, S.J., Fowler, J.W., 2001, Maximizing delivery performance in semiconductor wafer fabs—potential implementation issues, Industrial Engineering Research Conference, Dallas, Texas.
46. Mason, S.J., Yan, L., The manufacture/outsource decision in electronics manufacturing, 2001, Semiconductor Manufacturing Operational Modeling and Simulation Symposium, Cochran, J.K., Bonal, J. (eds.), 117-122.
47. Nachtmann, H., Mason, S.J., Angulo, A.F.* , Fant, E.W., 2001, Validation of target inventory methodologies in the real world, Industrial Engineering Research Conference, Dallas, Texas.
48. Oey, K.* , Mason, S.J., 2001, Scheduling batch processing machines in complex job shops, Proceedings of the 2001 Winter Simulation Conference, Peters, B.A., Smith, J.S., Medeiros, D.J., Rohrer, M.W. (eds.), 1200-1207.
49. Qu, P.* , Skinner, G.E.* , Mason, S.J., 2001, Sizing a pilot production line using simulation, Proceedings of the 2001 Winter Simulation Conference, Peters, B.A., Smith, J.S., Medeiros, D.J., Rohrer, M.W. (eds.), 1188-1193.
50. Mason, S.J., Fowler, J.W., 2000, Maximizing delivery performance in semiconductor wafer fabs, Proceedings of the 2000 Winter Simulation Conference, Joines, J.A., Barton, R.R., Kang, K., Fishwick, P.A. (eds.), 1458-1463.
51. Mason, S.J., Jensen, P.A., Fowler, J.W., 1996, A comparison study of the logic of four wafer fabrication simulators, Proceedings of the 1996 Winter Simulation Conference, Charnes, J.M., Morrice, D.J., Brunner, D.T., Swain, J.J.(eds.), 1031-1038.

* *Student co-author*

Invited Papers and Presentations

1. Cakici, E.*, Mason, S.J., Fowler, J.W., Geismar, H.N., 2009, Batch Loading on Parallel Machines with Incompatible Job Families and Release Times, INFORMS Annual Meeting, San Diego, California.
2. Bogle, B.M.*, Mason, S.J., 2009, Binning and Allocation Strategies for Satisfying Semiconductor Customer Demand, INFORMS Annual Meeting, San Diego, California.
3. Kamali*, B., Mason, S.J., Pohl, E.A., 2009, Network Design Analysis for Special Needs Student Services, INFORMS Annual Meeting, San Diego, California.
4. Iyoob, I.*, Mason, S.J., Pohl, E.A., 2009, Impact of Lane Volume Variability in Forecasting Lane Volumes for Truckload (TL) Service Procurement, INFORMS Annual Meeting, San Diego, California.
5. Townsley, R.*, Mason, S.J., 2009, Scheduling Gifted and Talented Education Classes, INFORMS Annual Meeting, San Diego, California.
6. Mason, S.J., 2009, An Analysis of Forced Transfer Busing for Elementary School Students, Clemson University, Clemson, South Carolina.
7. Mason, S.J., 2009, Introduction to Scheduling, Universidad de Centro Americana, San Salvador, El Salvador.
8. Mason, S.J., 2009, Optimizing Logistics for Improved Performance, Rotary International, Rogers, Arkansas.
9. Mason, S.J., 2009, Optimizing Logistics for Improved Performance, Rotary International, Fayetteville, Arkansas.
10. Mason, S.J., 2009, Modeling and Analysis of Semiconductor Manufacturing: From Research to Reality, College of Engineering, Texas State University, San Marcos, Texas.
11. Mason, S.J., Nachtmann, H.L., Pohl, E.A., 2008, Integrated Distribution Planning and Forecasting for Medical Logistics, INFORMS Annual Meeting, Washington, D.C.
12. Cakici, E.*, Mason, S.J., Geismar, N., Fowler, J.W., 2008, Integrated Manufacturing and Distribution Scheduling, INFORMS Annual Meeting, Washington, D.C.
13. Montgomery, W.*, Mason, S.J., Pohl, E.A., 2008, Military Troop Leave Scheduling During Wartime, INFORMS Annual Meeting, Washington, D.C.
14. Meller, R.D., Mason, S.J., Pazour, J.A.*, Root, S.E., Unlu, Y.*, 2008, Unit Dose Packaging Systems Analysis, INFORMS Annual Meeting, Washington, D.C.
15. Mason, S.J., Pohl, E.A., 2008, Military and Medical Logistics at the University of Arkansas, Defense Medical Logistics Academic Forum, Gaithersburg, Maryland.
16. Mason, S.J., Strnad, M., 2008, Cost Impacts of Simulation Modeling for Roll to Roll Processing, 7th Annual Flexible Electronics & Displays Conference, Phoenix, Arizona.
17. Ferguson, J.A.*, Mason, S.J., 2007, Circuit Routing Strategy for Forced Transfer Busing, INFORMS Annual Meeting, Seattle, Washington.
18. Kurz, M.E., Fowler, J.W., Mason, S.J., Pfund, M.E., Pohl, L.M.*, 2007, Multi-objective Semiconductor Manufacturing Scheduling, INFORMS Annual Meeting, Seattle, Washington.
19. Mason, S.J., 2007, Integrated Distribution Planning and Forecasting for Medical Logistics, U.S. Army Medical Research & Materiel Command's Telemedicine & Advanced Technology Research Center (TATRC), Fort Detrick, Maryland.
20. Mason, S.J., 2006, AFOSR-PS13: Integrated Distribution Planning and Forecasting for Medical Logistics, Logistics Management Institute, Virginia.
21. Kemp, R.A., Mason, S.J., 2005, Indirect MRO Benchmarking Survey 2005 Results, Ozark Indirect MRO Conference and Workshop, Fayetteville, Arkansas.
22. Kemp, R.A., Mason, S.J., 2005, Indirect MRO Benchmarking Survey 2005 Results, Indirect MRO Conference and Workshops, Seattle, Washington.
23. Mason, S.J., 2005, Integrated semiconductor manufacturing scheduling and simulation, Dagstuhl Seminar on Simulation & Scheduling, Wadern, Germany.

24. Mason, S.J., Hawthorne, P.D., 2004, RFID + MRO = ?, 7th MRO Indirect Materials Conference & Workshops, Las Vegas, Nevada.
25. Mason, S.J., 2004, Multiple orders per job scheduling problems, Graduate Seminar, Arizona State University.
26. Fowler, J.W., Mason, S.J., McGinnis, L.F., Rose, O., 2003, Operational Modeling and Simulation of Semiconductor Manufacturing: A Panel Discussion, INFORMS Annual Meeting, Atlanta, Georgia.
27. Mason, S.J., 2003, The multiple orders per job scheduling problem, Graduate Seminar, Clemson University.
28. Fowler, J.W., Mason, S.J., 2003, Industrial Engineering in Semiconductor Manufacturing Panel Discussion, Industrial Engineering Research Conference, Portland, Oregon.
29. Mason, S.J., 2003, Scheduling Semiconductor Wafer Fabrication Facilities, *Business Briefing: Global Semiconductor Manufacturing Technology*, World Markets Research Centre, London, England.
30. Mason, S.J., 2003, Industrial Engineering Research Conference Doctoral Colloquium, Teaching Panel Discussion, Industrial Engineering Research Conference, Portland, Oregon.
31. Mason, S.J., Jin, S. *, Zakaria, O. *, 2003, Repair Algorithms for Complex Job Shop Rescheduling, INFORMS Annual Meeting, Atlanta, Georgia.
32. Mason, S.J., Wessels, C. *, Zakaria, O. *, 2003, Toolgroup Blackboxing Approaches for Complex Job Shop Scheduling, INFORMS Annual Meeting, Atlanta, Georgia.
33. Mason, S.J., 2002, Graduate and undergraduate research and funding opportunities, in the University of Arkansas's *Tech Summit*, Arkansas.
34. Mason, S.J., 2002, Semiconductor manufacturing: an overview and current research, in Anahuac University's *Tercer Congreso Internacional de Ingenieria Anahuac*, Mexico City, Mexico.
35. Mason, S.J., Wessels, C. *, 2002, State of the Art Static and Dynamic Modeling Survey, Seagate Technologies, Minneapolis, Minnesota.
36. Fowler, J.W., Carlyle, W.M., Runger, G., Gel, E., Mason, S.J., Rose, O., 2001, A new approach for scheduling semiconductor wafer fabs, *Semiconductor Fabtech*, 15th Edition, 39-41.
37. Fowler, J.W., Mason, S.J., 2001, The need for planning and scheduling in wafer fab, in GINTIC Institute of Manufacturing Technology's *Maximizing Output in Wafer Fab through Advanced Simulation and Planning / Scheduling Seminar*, Singapore.
38. Fowler, J.W., Mason, S.J., 2001, The relationship between cycle time and capacity, Chartered Semiconductor Seminar, Singapore.
39. Krishnaswamy, S., Mason, S.J., 2001, Framework for Planning, Scheduling & Dispatch in Semiconductor Manufacturing, INFORMS International Annual Meeting, Maui, Hawaii.
40. Mason, S.J., Fowler, J.W., 2001, Planning and scheduling in wafer fab, in GINTIC Institute of Manufacturing Technology's *Maximizing Output in Wafer Fab through Advanced Simulation and Planning / Scheduling Seminar*, Singapore.
41. Mason, S.J., Fowler, J.W., Carlyle, W.M., 2001, Scheduling of Semiconductor Wafer Fabrication Facilities, INFORMS International Annual Meeting, Maui, Hawaii.
42. Fowler, J.W., Hogg, G.L., Mason, S.J., 1999, Workload Control in the Semiconductor Industry, INFORMS Annual Meeting, Philadelphia, Pennsylvania.
43. Mason, S.J., Galaz, E., 1998, Evaluation of a Compound Dispatch Rule in a Semiconductor Fab, INFORMS Annual Meeting, Seattle, Washington.
44. Mason, S.J., Krishnaswamy, S., Potti, K., 1997, Modeling & Simulation at AMD, INFORMS Annual Meeting, Dallas, Texas.

* Student co-author

Final Reports to Sponsoring Agencies

1. Mason, S.J., Meller, R.D., Root, S.E., Garman, S. *, 2009, Assessment of Vendor Contract Impacts on Retail Logistics, Final Report to CELDi and Sam's Club Stores.
2. Mason, S.J., Buyurgan, N., Ertem, M.A. *, Saka, B. *, Long, T. *, Brotherton, S. *, 2009, Effective Scheduling and Coordination of Disaster Relief Operations, Final Report to AFOSR.
3. Mason, S.J., Nachtmann, H.L., Pohl, E.A., Celikkol, S. *, Jia, J. *, Unlu, Y. *, Long, T. *, Brotherton, S. *, 2009, Integrated Distribution Planning and Forecasting for Medical Logistics, Final Report to AFOSR.
4. Mason, S.J., Meller, R.D., Ferguson, J.A. *, 2008, Improving Retail Logistics through an Examination of Merchandise Flow and Space Planning, Final Report to CELDi and Sam's Club Stores.
5. Mason, S.J., Meller, R.D., Pohl, E.A., Medal, H. *, Gade, D. *, 2008, Routing Models for Rural Transportation Networks with Time-Varying Constraints, Final Report to MBTC.
6. Mason, S.J., Cassady, C.R., Cakici, E. *, Jia, J. *, Yu, P. *, 2007, Production and Distribution Systems Optimization for Cellar Tank Piping Network, Final Report to CELDi and E. & J. Gallo Winery.
7. Cassady, C.R., Pohl, E.A., Mason, S.J., Yeung, T.G. *, 2005, Multi-State Selective Maintenance Decisions, Final Report to TLI/AFRL.
8. Mason, S.J., 2004, Final Deliverables Report, Task 1: Scheduling and Rescheduling Methodologies, Semiconductor Research Corporation, Research Triangle, North Carolina.
9. Wessels, C. *, Mason, S.J., 2003, Report on order release policies and integration into scheduling approaches, Semiconductor Research Corporation, Research Triangle, North Carolina.
10. Mason, S.J., Chimka, J.R., Greiner, M., Yeung, T. *, 2003, Applied Logistics Research Project – ATA 0201 Final Report: Commercial Practices as Applied to Total Asset Visibility, Wright-Patterson AFB, Ohio.
11. Cassady, C.R., Mason, S.J., Chimka, J.R., Schneider, K. *, Ormon, S. *, Rainwater, C. *, Carrasco, M. *, Honeycutt, J. *, 2003, Applied Logistics Research Project – MM0202 Final Report: Fleet-Level Selective Maintenance and Aircraft Scheduling, Air Force Research Laboratory, Wright-Patterson AFB, Ohio.
12. Mason, S.J., 2002, Report on incorporation of material handling issues into shifting bottleneck approach, Semiconductor Research Corporation, Research Triangle, North Carolina.
13. Mason, S.J., 2002, Report on methods to combine tool groups into non-critical areas and abstract them out of the models, Semiconductor Research Corporation, Research Triangle, North Carolina.
14. Mason, S.J., Magableh, G.M. *, Kutanoglu, E., 2002, Impact of wireless data systems on the transportation systems of the future, Mack-Blackwell Transportation Center Final Report, Fayetteville, AR.
15. Mason, S.J., 2001, Report on the development and implementation of the shifting bottleneck approach and the basic rescheduling methodology, Semiconductor Research Corporation, Research Triangle, North Carolina.

Sponsored Research Grants (\$2.76M total)

External, Competitive \$ 455,999
Federal Research Centers \$1,263,587

UA Internal \$115,603
Congressional Appropriations \$921,638

1. National Science Foundation, Ensuring Continuity of Care: A Quantification of Risk in the Healthcare Supply Chain, Mason (17%), Pohl (16%), Root (16%), Sir—Missouri (24%), Taaffe—Clemson (27%), 8/15/09-12/31/10, \$150,000
2. Mack Blackwell Transportation Center, Network Design Analysis for Special Needs Student Services, Mason (50%), Pohl (50%), 7/1/09-6/30/10, \$100,000
3. Center for Engineering Logistics and Distribution, Service Level Optimization, Root (50%), Mason (50%), 5/16/09-5/15/10, \$50,000
4. University of Arkansas, Honors College Undergraduate Research Grant—Elizabeth McCallion, Mason, 01/01/09-11/01/09, \$3,900
5. University of Arkansas, Honors College Undergraduate Research Grant—Rachel Townsley, Mason, 01/01/09-11/01/09, \$3,900
6. Department of Homeland Security Center of Excellence, Designing Resilient and Sustainable Supply Chains Networks, Pohl (50%), Mason (50%), 1/1/2009-12/31/2010, \$150,000
7. Arkansas Department of Higher Education, SURF: Optimizing Piped Water Routing and Decentralized Water Unit Locations in Rural Areas, Mason, 1/1/2009-10/31/2009, \$4,320
8. Mack Blackwell Transportation Center, Improving Forced Transfer and Special Needs Busing in Rural Public Schools, Mason (50%), Pohl (50%), 7/1/08-6/30/09, \$79,760
9. Center for Engineering Logistics and Distribution, Assessment of Vendor Contract Impacts on Retail Logistics, Mason (34%), Meller (33%), Root (33%), 5/14/08-5/17/09, \$50,000
10. Center for Innovation in Healthcare Logistics, Unit and Dose Packaging Systems Analysis, Meller (34%), Mason (33%), Root (33%), 01/01/08-12/31/08, \$104,003
11. Arkansas Department of Higher Education, SURF: Examination of the Impact of Binning on Customer Demand Satisfaction and Profit Maximization in the Semiconductor Industry, Mason, 01/01/08-10/31/08, \$4,320
12. National Science Foundation, Collaborative Research: A TIE Research Program on E-Design for Design for Supply Chain, Mason, 08/01/07-07/31/09, \$50,364
13. Center for Engineering Logistics and Distribution, Improving Retail Logistics through an Examination of Merchandise Flow and Space Planning, Mason (50%), Meller (50%), 05/14/07-05/13/08, \$50,000
14. Center for Engineering Logistics and Distribution, CELDi Affiliate Membership, ABF Freight, Meller (50%), Mason (50%), 01/01/07-12/31/07, \$5,000
15. Center for Engineering Logistics and Distribution, CELDi Membership, Sam's Club, Meller (50%), Mason (50%), 01/01/07-12/31/07, \$5,000
16. Arkansas Department of Higher Education, SURF: Focused Research in Public School Transportation, Mason, 01/01/07-10/31/07, \$4,320
17. National Science Foundation, Research Experience for Teachers, Mason, 07/03/06-12/31/06, \$10,000
18. Mack Blackwell Transportation Center, Routing Models for Rural Transportation Networks with Time-Varying Constraints, Mason (34%), Meller (33%), Pohl (33%), 08/14/06-6/30/08, \$98,218
19. Air Force Office of Scientific Research, Scheduling and Coordination of Disaster Relief and Deployment Operations, Mason (50%), Buyurgan (50%), 07/01/06-12/31/08, \$97,154
20. Air Force Office of Scientific Research, Integrated Distribution Planning and Forecasting for Medical Logistics, Mason (50%), Nachtmann (50%), 07/01/06-12/31/08, \$140,151
21. University of Arkansas, Honors College Undergraduate Research Grant—Wenfeng Li, Mason, 01/01/06-11/01/06, \$3,800

22. Air Force Office of Scientific Research, Adaptive Military Logistics Network Design and Optimization, Mason (25%), Chimka (25%), Cassady (25%), Pohl (25%), 01/01/05-08/31/06, \$267,775
23. Center for Engineering Logistics and Distribution, Production and Distribution Systems Optimization, Mason (50%), Cassady (50%), 01/01/04-12/31/06, \$150,000
24. Center for Engineering Logistics and Distribution, Inventory Tracking—Best Practices and Research Needs, Mason, 01/01/04-12/31/04, \$8,458
25. Center for Engineering Logistics and Distribution, Modeling and Analysis of Center Point Distribution Network, Mason (50%), Rossetti (50%), 08/18/03-12/31/04, \$50,000
26. Center for Engineering Logistics and Distribution, Assessment of Radio Frequency Identification at Pine Bluff Arsenal, Chimka (34%), Fant (33%), Mason (33%), 10/01/03-09/30/04, \$50,000
27. Air Force Research Laboratory, Multi-State Selective Maintenance Decisions, Cassady (34%), Mason (33%), Pohl (33%), 08/01/03-01/31/05, \$120,756
28. Center for Engineering Logistics and Distribution, Integration of Supply Chain Warehousing and Transportation Functions, Mason, 01/01/03-12/31/03, \$25,000
29. Air Force Research Laboratory, Commercial Practices as Applied to Total Asset Visibility (TAV), Mason (50%), Chimka (50%), Other Faculty: Greiner, 08/19/02-12/31/03, \$106,359
30. Air Force Research Laboratory, Quantifying the Effect of Commercial Transportation Practices in Military Supply Chains, Rossetti (50%), Mason (50%), 08/19/02-06/30/04, \$94,533
31. Air Force Research Laboratory, Fleet-Level Selective Maintenance and Aircraft Scheduling, Cassady (34%), Mason (33%), Chimka (33%), 08/19/02-06/30/04, \$94,910
32. Mack Blackwell Transportation Center, Integrated Analysis of Transportation and Inventory in Intermodal Distribution Networks, Mason (50%), Kutanoglu (50%), 08/19/02-08/16/03, \$89,305
33. Seagate Technologies, LLC, Static and Dynamic Capacity Modeling Benchmarking, Mason, 06/01/02-09/30/02, \$4,664
34. The Logistics Institute, Integration of Supply Chain Warehousing and Transportation Functions, Mason, 01/01/02-12/31/02, \$25,000
35. Semiconductor Research Corporation, Research Opportunities for Undergraduates: Scheduling Semiconductor Wafer Fabs, Mason, 09/01/01-05/31/03, \$18,000
36. The Logistics Institute, Inventory Modeling of Complex Production Distribution Environments, Mason (50%), Cole (50%), 08/13/01-08/31/02, \$50,000
37. The Logistics Institute, Economic Assessment of Production Downtime, Mason (50%), Nachtmann (50%), 08/13/01-08/31/02, \$50,000
38. Mack Blackwell Transportation Center, Impact of Wireless Data Systems on the Transportation Systems of the Future, Mason (50%), Kutanoglu (50%), 08/01/01-06/30/02, \$32,846
39. The Logistics Institute, Integrating the Warehousing and Trucking Functions of the Supply Chain—A Pull Model, Mason, 01/01/01-12/31/01, \$25,000
40. Semiconductor Research Corporation, Scheduling of Semiconductor Wafer Fabrication Facilities, Mason, 01/01/01-12/31/03, \$220,011
41. The Logistics Institute, Contract Manufacturing's Impact on the Electronic Manufacturing Supply Chain, Cole (50%), Mason (50%), 08/16/00-08/15/01, \$50,000
42. The Logistics Institute, Production Planning Model Validation, Nachtmann (34%), Mason (33%), Fant (33%), 08/16/00-08/15/01, \$50,000

Teaching Evaluations

Number	Title	Students	Year	Rating
INEG 4904	Industrial Engineering Design	6	2009 Spring	4.9 / 5.0
INEG 3413	Engineering Economic Analysis	31	2008 Fall	4.2 / 5.0
INEG 4904	Industrial Engineering Design	30	2008 Spring	4.8 / 5.0
INEG 5653	Modeling & Analysis of Semiconductor Manufacturing	10	2008 Spring	4.5 / 5.0
INEG 4904	Industrial Engineering Design	21	2007 Spring	4.9 / 5.0
INEG 5613	Optimization Theory I	23	2006 Fall	4.5 / 5.0
INEG 5843	Sequencing and Scheduling I	10	2006 Fall	4.6 / 5.0
INEG 4904	Industrial Engineering Design	36	2006 Spring	4.9 / 5.0
INEG 4904	Industrial Engineering Design	10	2005 Fall	4.4 / 5.0
INEG 6843	Sequencing and Scheduling II	9	2005 Fall	4.6 / 5.0
INEG 4904	Industrial Engineering Design	27	2005 Spring	4.5 / 5.0
INEG 5843	Sequencing and Scheduling I	16	2005 Spring	4.6 / 5.0
INEG 4904	Industrial Engineering Design	13	2004 Fall	4.3 / 5.0
INEG 5613	Optimization Theory I	24	2004 Fall	4.3 / 5.0
INEG 4904	Industrial Engineering Design	24	2004 Spring	4.9 / 5.0
INEG 5653	Modeling & Analysis of Semiconductor Manufacturing	14	2004 Spring	4.6 / 5.0
INEG 4904	Industrial Engineering Design	18	2003 Fall	4.3 / 5.0
INEG 5613	Optimization Theory I	22	2003 Fall	4.5 / 5.0
INEG 4904	Industrial Engineering Design	41	2003 Spring	4.8 / 5.0
INEG 5143	Sequencing and Scheduling II	7	2003 Spring	5.0 / 5.0
INEG 4904	Industrial Engineering Design	19	2002 Fall	4.7 / 5.0
INEG 5843	Sequencing and Scheduling I	11	2002 Fall	4.7 / 5.0
INEG 4103	Sequencing and Scheduling I	3	2002 Fall	4.3 / 5.0
INEG 4904	Industrial Engineering Design	28	2002 Spring	4.7 / 5.0
INEG 4513	Electronics Manufacturing Processes	7	2001 Fall	4.3 / 5.0
ELEG 4273	Electronics Manufacturing Processes	8	2001 Fall	3.9 / 5.0
INEG 5143	Modeling & Analysis of Semiconductor Manufacturing	12	2001 Fall	4.2 / 5.0
ELEG 5873	Modeling & Analysis of Semiconductor Manufacturing	2	2001 Fall	4.9 / 5.0
INEG 3413	Engineering Economic Analysis	22	2001 Spring	4.1 / 5.0
INEG 4513	Electronics Manufacturing Processes	17	2000 Fall	3.9 / 5.0

National and International Service

Associate Editor, *IEEE Transactions on Electronics Packaging Manufacturing*, 2007-Present

Referee for *Annals of Operations Research*

Computers & Industrial Engineering

European Journal of Industrial Engineering

European Journal of Operational Research

IEEE Transactions on Components, Packaging, and Materials Technology

IEEE Transactions on Robotics and Automation

IEEE Transactions on Semiconductor Manufacturing

IIE Transactions on Scheduling and Logistics

International Journal of Production Research

International Journal of Simulation and Process Modeling

Journal of Business Logistics

Journal of Scheduling

Mathematical and Computer Modeling

Naval Research Logistics

Operations Research Letters

Production Planning & Control

Robotics and Computer Integrated Manufacturing

Simulation: Transactions of the Society for Modeling and Simulation International

Transportation Research Part E: Logistics and Transportation Review

Industrial Engineering Research Conference

Session Chair, 2002-2009

Operations Research Track Chair, 2005

Co-Coordinator, New Faculty Colloquium, 2005

Program Co-Chair, 2008

Tutorials Track Co-Chair, 2009

Invited Session Organizer, 2010

Institute for Operations Research and Management Sciences

Session Chair, 1999, 2007

Panelist, Future Academician Colloquium, 2008

Winter Simulation Conference

Session Chair, 2000, 2001

Proceedings Co-Editor and Publications Chair, 2008

Program Co-Chair, Modeling and Analysis of Semiconductor Manufacturing, 2009

Technical Vice President, Technical Networking, Institute of Industrial Engineers, 2007-2009

President, Operations Research Division, Institute of Industrial Engineers, 2005-2006

Member, Editorial Board, Wright Williams & Kelly's *Applied Cost Modeling*, 2001-Present

Member, International Technology Roadmap for Semiconductors, 2007-2009

University Service

Member, Program Review Committee, University of Arkansas, 2006-2009

Member, Faculty Governance Task Force, University of Arkansas, 2005

Member, Committee on Continuing Education, University of Arkansas, 2004-2007

Chair, Nominating & Elections Coordinating Committee, University of Arkansas, 2002-2004

Member, Making the Most of College Task Force, University of Arkansas, 2003-2005

Summer Intern Mentor, George Washington Carver Project, 2002-2004

Member, Nominating & Elections Coordinating Committee, University of Arkansas, 2001-2002

College Service

Director of Distance Education, College of Engineering, University of Arkansas, 2009-Present
Chair of Distance Education Task Force, College of Engineering, University of Arkansas, 2009-Present.
Chief Judge, Computing Technology and Applications Track, FEP Honors Research Symposium, 2009.
Member, Space Planning Committee, College of Engineering, University of Arkansas, 2005
Member, Research Council, College of Engineering, University of Arkansas, 2004-2007
Member, Scholarship Committee, College of Engineering, University of Arkansas, 2002-2004
Member, Distance Education Committee, College of Engineering, University of Arkansas, 2003-2005
Member, Academic Programs Committee, College of Engineering, University of Arkansas, 2006-2009

Departmental Service

Chair, Graduate Studies, Department of Industrial Engineering, University of Arkansas, 2000-2009
Member, Graduate Studies, Department of Industrial Engineering, University of Arkansas, 2009-2010
Member, Global Studies, Department of Industrial Engineering, University of Arkansas, 2007-2010
Member, Operations Management Graduate Committee, University of Arkansas, 2006-2009
Member, Faculty Search Committee, Department of Industrial Engineering, University of Arkansas, 2003-2004, 2006-2007
Member, Scholarship, Awards, and Banquet Committee, Department of Industrial Engineering, University of Arkansas, 2002-2010
Member, Equipment Committee, Department of Industrial Engineering, University of Arkansas, 2003-2005
Member, Promotion and Tenure Committee, Department of Industrial Engineering, University of Arkansas, 2005-2010

Doctoral Dissertations Directed

1. Eray Cakici, Collaborative Decision Making in Supply Chain Scheduling, 2009 (*Senior Logistics Engineer, Transplace, Inc., Lowell, Arkansas*)
2. Jun Jia, Network Design Strategies for Forced Transfer Busing, 2008 (*Operational Modeling and Simulation Specialist, RTKL Associates, Inc., Dallas, Texas*)
3. Mazen Al-Otaibi, Ph.D., Scheduling Disaster Relief Operations, 2008 (*Department of Systems Engineering, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia*)
4. Inamulla Iyoob, Ph.D., Evaluation of Multi-Unit Truckload Service Procurement Combinatorial Auctions with Two-Tier Capacity Constraints, 2008 (*Engineering Manager, Transplace, Inc., Lowell, Arkansas*)
5. Jagadish Jampani, Ph.D., Heuristics for Multiple Orders per Job Scheduling Problems, 2007 (*Operations Research Manager, CSX, Inc., Jacksonville, Florida*)
6. Ghazi Magableh, Ph.D., A Dynamic Replenishment System (DRS) for Integrating Supply Chain Warehousing and Transportation Functions, 2004 (*Department of Mechanical Engineering, Prince Faisal Technical College, Al-Balqa' Applied University, Amman, Jordan*)
7. Peng Qu, Ph.D., Multiple Orders per Job Scheduling Problems, 2004 (*Senior Technical Staff, Integrated Production Scheduling Department, Advanced Micro Devices, Austin, Texas*)

Master's Projects/Theses Directed

1. Willie Montgomery III, M.S.I.E., Military Troop Leave Scheduling During Wartime, 2009.
2. Jennifer A. Ferguson, M.S.I.E., Analysis of Circuit Routing for Forced Transfer Busing, 2008.
3. Stephenson Sharp, M.S.I.E., Multi-Objective Multiple Orders per Job Scheduling on Identical, Parallel Machines, 2008.
4. Yasin Unlu, M.S.I.E., Evaluation of Mixed Integer Programming Formulations for Non-Preemptive Parallel Machine Scheduling Problems, 2008.
5. Behlul Saka, M.S.I.E., Dynamic Assignment and Scheduling for Less than Truckload Trucking, 2007.
6. K. John Sophabmixay, M.S.I.E., Strategic Optimization of a Distribution Network with Intermediate Consolidation Centers, 2007.
7. Joo Hyoung Kim, M.S.I.E., Lighter Scheduling in Joint Logistics Over-The-Shore Operations, 2006.
8. Jun Jia, M.S.I.E., Scheduling Jobs Containing Multiple Orders on Identical Parallel Machines, 2006.
9. Eray Cakici, M.S.I.E., Parallel Machine Scheduling Subject to Auxiliary Resource Constraints, 2005.
10. Vishnu Erramilli, M.S.I.E., Multiple Orders per Job Batching and Scheduling Problems, 2005.
11. Chris Wessels, M.S.I.E., Black Boxing Toolgroups in the Shifting Bottleneck Heuristic, 2005.
12. Thomas Yeung, M.S.I.E., Using Real Options Analysis to Value Reoptimization Options in the Shifting Bottleneck Heuristic, 2004.
13. Song Jin, M.S.I.E., A Moving Block Heuristic to Minimize Earliness and Tardiness Costs on Single and Parallel Machines, 2003.
14. Peng Qu, M.S.I.E., Scheduling Jobs Containing Multiple Orders, 2002.
15. P. Mauricio Ribera, M.S.I.E., Global Inventory Visibility's Impact on Trailer Yard Operations, 2002.
16. Tze-Chen Hau, M.S.I.E., Contract Manufacturing in the Electronics Manufacturing Supply Chain, 2001.
17. Kasin Oey, M.S.I.E., Scheduling Batch Processing Machines in Complex Job Shops, 2001.

Undergraduate Honors Theses Directed

1. Brittany Bogle, B.S.I.E., Focused Research in Public School Transportation, 2009.
2. Wenfeng Li, B.S.I.E., Comparison of Simulation-Based Schedule Generation Methodologies for Semiconductor Manufacturing, 2007.

Current Students in Progress

1. Huy Nhiem Nguyen, Ph.D., Risk Analysis of the Multi-Modal Infrastructure in Global Supply Chain Networks, expected May 2011.
2. Behrooz Kamali, M.S.I.E., Special Needs Student Busing, exp. 6/2010.
3. Elizabeth M. McCallion, B.S.I.E., An Analysis of Special Needs Student Busing, expected December 2009.
4. Troy C. Long, B.S.I.E., Multiple Orders per Jobs Scheduling with Traceability Constraints, expected December 2009.
5. Rachel Townsley, B.S.I.E., Gifted and Talented Class Scheduling, expected May 2010.
6. Natassia Taylor, B.S.I.E., Risk in Healthcare Supply Chains, expected December 2010.

Master's and Doctoral Committee Service

1. Srikanth Badrinarayanan, M.S.I.E. (Clemson University), Bi-objective Flexible Flowline Scheduling, expected December 2010.
2. Ornurai Sangsawang, Ph.D. (Clemson University), Metaheuristics for Hub Location Models, expected May 2011.
3. Hugh R. Medal, Ph.D., The Donation Problem in Humanitarian Logistics, expected May 2011.
4. Stevenson J. Sharp, Ph.D., TBD, expected May 2011.
5. Thashika Rupasinghe, Ph.D. (Clemson University), An Investigation of Metaheuristics Using Path-Relinking on Single and Multiobjective Quadratic Assignment Problems, expected December 2010.
6. Erin Gross Claypool, Ph.D. (University of Pittsburgh), Quantitative Model for Assessing and Mitigating Risk in a Design for Supply Chain Problem, expected December 2009.
7. Jason Stout, M.S.I.E., A Comparative Analysis of a Genetic Algorithm to the Cova-Church Heuristic for the Purpose of Risk and Vulnerability Assessment in Emergency Planning, 2009.
8. Hugh Medal, M.S.I.E., Multiobjective Simulation Optimization: A Comparison of Methods, 2008.
9. Jia Zhou, Ph.D., Theoretical Errors and Economic Design for Individual Measurements, 2008.
10. Julie Braden, M.S.I.E., The Dial-a-Ride Problem with Flexible Destinations, 2008.
11. Mauricio Guzman, M.S.O.R., A Probabilistic Programming Approach in the Analysis of Social Networks, 2008.
12. Jennifer Pazour, M.S.I.E., A Model to Design a National High-Speed Network for Freight Distribution, 2008.
13. Kelly Sullivan, M.S.I.E., Ranking Sports Teams: A Deterministic Algorithm, 2008.
14. Dinakar Gade, M.S.I.E., Analysis of Unreliable Facilities in Supply Chain Network Design Problems, 2007.
15. Sinan Salman, Ph.D., The Container Loading Problem: A New Approach To The Modeling And Solution Of Three-Dimensional Packing Problems, 2007.
16. Selin Celikkol, M.S.I.E., Cost Driver Selection In Activity-Based Costing Systems, 2007.
17. Oksan Kaya, M.S.I.E., Measuring the Impacts of High Magnitude and Asymmetric Inventory and Demand Error on a Retail Outlet, 2007.
18. Josh McGee, M.S.I.E., Modeling Sortie Generation for Unit Level Logistics Planners, 2007.
19. Shikha Nangia, M.S.I.E., Object-Oriented Transportation Modeling for a Logistics Network Simulation, 2006.
20. Kellie Schneider, M.S.I.E., Comparison of Alternative Fleet-Level Selective Maintenance Models, 2006
21. Justin Hunter, M.S.I.E., Measuring the Impact of Inaccurate Inventory Information on a Retail Outlet, 2006
22. David Rieske, M.S.I.E., Measuring the Impact of Demand Inaccuracy on a Retail Outlet, 2006
23. Thomas Yeung, Ph.D., Optimization Models for Capital Budgeting Under Uncertainty, 2005
24. V. Kiran Chittoori, M.S.I.E., Inventory Record Inaccuracy: Bullwhip Effect, 2005
25. Amit Shee, M.S.I.E., Economic Design of Continuous Sampling Plans, 2005
26. Soncy Thomas, M.S.I.E., Object Oriented Spare Parts Supply Chain Simulation Framework, 2004
27. Ilyas Iyoob, M.S.I.E., Establishing Maintenance Resource Levels Using Selective Maintenance, 2004
28. Rajanand Rajagopalan, M.S.I.E., An Improved Selective Maintenance Solution Approach, 2004
29. Bashyam Ramasami, M.S.I.E., Design of Merge-In-Transit Networks, 2003
30. Ronald Seng-Toh Ling, M.S.I.E., A Scaling-Based Heuristic for Resource Constrained Project Scheduling Problems, 2002
31. Andres Felipe Angulo Garrido, M.S.I.E., The Impact of Information Delay and Accuracy in a Vendor-Managed Inventory Supply Chain Under an (R,S) Inventory Policy, 2002
32. Hintat Chan, M.S.I.E., Object-Oriented Supply Chain Simulation Framework, 2002
33. Long-Foong Liow, M.S.I.E., Integrated Job Shop Scheduling and Inventory Management, 2001

Contributions to Diversity

Supervised three George Washington Carver Project summer interns, introducing them to potential careers and graduate school opportunities in industrial engineering
Supervised and graduated the Department of Industrial Engineering's first Graduate Education for Minorities Scholar
Advised the research projects of and graduated one female Ph.D. student, two female M.S.I.E. students, and one B.S.I.E. Honors thesis student
Currently advising three female Honors students' undergraduate research

Professional Affiliations

Senior Member, Institute of Industrial Engineers (IIE)
Member, Institute for Operations Research and Management Science (INFORMS)

Consulting and Industrial Experience

Abbie Gregg, Inc. (Tempe, Arizona)
Advanced Micro Devices (Austin, Texas; Sunnyvale, California)
Atmel Semiconductor (North Tyneside, United Kingdom; Colorado Springs, Colorado)
Avago Technologies (Fort Collins, Colorado)
Chartered Semiconductor (Singapore)
Cobb-Vantress, Inc. (Siloam Springs, Arkansas)
Cypress Semiconductor (Bloomington, Minnesota)
Dickinson Frozen Foods (Fruitland, Idaho)
FabTime, Inc. (San Luis Obispo, California)
Headway Technologies (Milpitas, California)
Institute for Supply Management (Fayetteville, Arkansas)
Intel Corporation (Chandler, Arizona)
International Rectifier (Newport, Wales, United Kingdom)
Micrel Semiconductor (San Jose, California)
National Security Agency (Fort Meade, Maryland)
National Semiconductor (Santa Clara, California; Arlington, Texas; South Portland, Maine; Greenock, Scotland)
Peregrine Semiconductor (Sydney, New South Wales, Australia)
PerkinElmer Optoelectronics (Santa Clara, California)
Read-Rite (Milpitas, California)
Sematech (Austin, Texas)
Springdale Public Schools (Springdale, Arkansas)
Synaptics (Santa Clara, California)
Tower Semiconductor (Migdal Haemek, Israel)
Tyson Foods (Fayetteville, Arkansas; Springdale, Arkansas)
Wright Williams & Kelly (Pleasanton, California)
X-Fab (Lubbock, Texas)