RESUME – Mary Elizabeth Kurz

PERSONAL DATA

Associate Professor
Department of Industrial Engineering
Clemson University
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EDUCATION

Ph.D., The University of Arizona, 2001, Systems and Industrial Engineering, Minor in Mathematics
M.S., The University of Arizona, 1997, Systems Engineering
B.S. with Honors, Magna cum Laude, The University of Arizona, 1995, Systems Engineering

PROFESSIONAL EXPERIENCE

Clemson University, 2017 –   , Associate Department Chair of Industrial Engineering
Clemson University, 2008 –   , Associate Professor of Industrial Engineering
Clemson University, 2001 – 2008, Assistant Professor of Industrial Engineering
IBM, 1998 – 1999, Supplemental Engineer
IBM, 1993 – 1998, Supplemental Programmer

MEMBERSHIPS

Institute of Industrial Engineers, IIE, Senior Member
Institute for Operations Research and Management Science, INFORMS
Society of Manufacturing Engineers, SME

PROFESSIONAL ACTIVITIES

- Associate Editor, *Journal of Manufacturing Systems* (April 2019 – Present)
- Editorial Board, *Journal of Manufacturing Systems* (July 2017 – April 2019)
- MISTA 2011, 2013 Program Committee Member
- INFORMS Activities
  - INFORMS 2012 Program Committee, Co-Chair Contributed Sessions
  - INFORMS 2012 Session Chair, WORMS Panel on Advice on Promotion to Full from Associate Professor
  - INFORMS 2011 Program Committee, Co-Chair Contributed Sessions
  - INFORMS 2010 Session Chair, Metaheuristics
  - INFORMS 2008, Cluster Chair, Metaheuristics
  - INFORMS 2007, Session Chair, "Condor at Clemson"
  - INFORMS, 2005 Annual Conference Organizing Committee, Chair Teaching Effectiveness Colloquium
  - INFORMS, Session Chair, "INFORM-ED 10th Anniversary", INFORMS Annual Conference 2005
  - INFORMS, Session Chair, "Workforce Decision Making", INFORMS Annual Conference 2003

- o INFORMS, Session Chair, "Workforce Decision Making", Atlanta 2003 Conference
  - o INFORMS, Session Chair, "Teaching OR/MS Tools", San Jose 2002 Conference
  - o INFORMS, Session Chair, "Production and Scheduling II", San Antonio 2000 Conference
- IIE / IISE Activities
  - o ISERC 2019, Track Co-Chair, Production Planning and Scheduling, Contributed Sessions
  - o IIE Operations Research Division, President, 2015-2016
  - o IIE Operations Research Division, President-Elect, 2014-2015
  - o IIE Scholarship Fund Trustee, 2011 – 2014
  - o IIE Operations Research Division, Board Member, 2011-2013
  - o IERC New Faculty Colloquium Speaker, 2010, 2011
  - o IERC Doctoral Colloquium Speaker, 2008, 2009, 2010, 2011
  - o IERC 2010, Track Co-Coordinator, Operations Research
  - o IERC Session Chair, 2009, 2010, 2011, 2012, 2015
- International Programming Committee of Evolutionary Multi-Criterion Optimization
  - o 2011, 2009, 2007
- 2008 ASME International Design Engineering Technical Conferences Paper Reviewer
- Natural Sciences and Engineering Research Council of Canada, Reviewer for Discovery Grants (2004-2005)
- International Conference on Engineering Education, Abstract Reviewer, (2004)
- National Science Foundation, Review Panelist for Operations Engineering (2017)
- National Science Foundation, Review Panelist for S-STEM Program in DUE (2010)
- National Science Foundation, Review Panelist for S-STEM Program in DUE (2008)
- National Science Foundation, Review Panelist for Manufacturing and Enterprise Systems Program in the Design, Manufacture, and Industrial Innovation Division (2001)
- IIE, Participant, New Faculty Colloquium, IIE Annual Conference, Portland OR (May 17, 2003)
- INFORMS, Participant, Doctoral Student Colloquium, Philadelphia 1999 Conference (November 7-10, 1999)
- INFORMS, Participant, Teaching Effectiveness Colloquium, Cincinnati 1999 Conference (May 1-2, 1999)

PUBLICATIONS
Refereed Journal Publications

1. Kurz, Mary E. and Ronald G. Askin. "Heuristic scheduling of parallel machines with sequence-dependent setup times." *International Journal of Production Research*, Vol. 39, No. 16, November 2001, 3747-3769.
2. Kurz, Mary E. and Ronald G. Askin. "Note on *An adaptable problem-space-based search method for flexible flow line scheduling*." *IIE Transactions*, Vol. 33, No.8, August 2001, 691-693.
3. Kurz, Mary E. and Ronald G. Askin. "Comparing scheduling rules for flexible flow lines." *International Journal of Production Economics*, Vol. 85, No. 3, 11 September 2003, 371-388.

4. Rangsaritratsamee, R., W. Ferrell Jr., and M. Kurz. "Dynamic rescheduling using a bicriteria objective with genetic local search". *Computers and Industrial Engineering*. Vol. 46, No. 1, March 2004, 1-15.

5. Kurz, Mary E. and Ronald G. Askin. "Scheduling flexible flow lines with sequence-dependent setup times". *European Journal of Operational Research*. Vol 159, No. 1, 16 November 2004, 66-82.

6. Tangudu, Sarat and Mary E. Kurz. "A branch and bound algorithm to minimize total weighted tardiness on a parallel-batch processing machine with ready times and incompatible job families." *Production Planning and Control*. Vol. 17, No. 7, October 2006, 728-741.

7. Samanlioglu, F., M. Kurz, W. Ferrell, and S. Tangudu, "A hybrid random-key genetic algorithm for a symmetric traveling salesman problem," *International Journal of Operations Research.* Vol. 2, No. 1, 2007.

8. Haral, U., R-W Chen, W. Ferrell, Jr., M. Kurz. "Multiobjective single machine scheduling with nontraditional requirements." *International Journal of Production Economics*. Vol. 106, No. 2, April 2007, 574-584.

9. 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).

10. Randall, Patricia and Mary E. Kurz "Effectiveness of adaptive crossover procedures for a genetic algorithm to schedule unrelated parallel machines with setups." *International Journal of Operations Research*. Vol. 4, No. 1, 2007, 1-10.

11. Kurz, Mary E. and Scott J. Mason. "Minimizing total weighted tardiness on a batch-processing machine with incompatible job families and job ready times." *International Journal of Production Research*. Vol. 46, No. 1, January 2008, 131-151.

12. Samanlioglu, Funda, William G. Ferrell Jr. and Mary E. Kurz. "A memetic random-key genetic algorithm for a symmetric multi-objective traveling salesman problem." *Computers & Industrial Engineering*. Vol. 55, September 2008, 439-449.

13. Madadi, A., J. Ashayeri, M.E. Kurz, 2010, "A Producer-Retailer Inventory Model with Considerations of Transportation Cost", *International Journal of Operational Research*, Vol. 9, No. 3, 272-286.

14. Madadi, A., M.E. Kurz, J. Ashayeri, 2010, "Multi-level Inventory Management Decisions with Transportation Cost Consideration", *Transportation Research E*, Vol. 46, 719–734.

15. Mark H. McElreath, Maria E. Mayorga, Mary E. Kurz, 2010, "Metaheuristics for Assortment Problems with Multiple Quality Levels". *Computers and Operations Research*, Vol. 37, No. 10, 1797-1804.

16. Thashika Rupasinghe, Mary E. Kurz, Carl Washburn and Anand Gramopadhye, 2011, "Virtual Reality Training Integrated Curriculum: An Aircraft Maintenance Technology (AMT) Education Perspective", *International Journal of Engineering Education*, Vol. 27, No. 4, 778–788.

17. Chanta, Sunarin, Maria Mayorga, Mary E. Kurz, Laura McLay, October 2011, "The minimum p-envy location problem: a new model for equitable distribution of emergency resources." *IIE Transactions on Healthcare Systems Engineering*, Vol. 1, No. 2, 101-115.

18. Cakici, Eray; Mason, Scott; Kurz, Mary E., May 15 2012, "Multi-objective analysis of an integrated supply chain scheduling problem." *International Journal of Production Research,* Vol. 50, No. 10, 2624-2638.

19. Samanlioglu, Funda, William G. Ferrell Jr. and Mary E. Kurz. October 15, 2012, "An interactive memetic algorithm for production and manufacturing problems modeled as multi-objective traveling salesman problem." *International Journal of Production Research,* Vol. 50, No. 20, 5671-5682.

20. Madadi, A., M.E. Kurz, S. Mason, and K. Taaffe, July 2014. "Supply Network Design under Quality Disruptions and Tainted Materials Delivery," *Transportation Research Part E*, Vol. 67, 105-123.

21. Madadi, AliReza; Mary E Kurz; Kevin M Taaffe; Julia L Sharp; Scott J Mason, December 2014, "Supply Network Design: Risk-Averse or Risk-Neutral?", *Computers and Industrial Engineering*, Vol. 78, 55-65.

22. Yoder, S. Elizabeth, Kurz, Mary E., Winter 2015, "Linear Programming Models Across the Curriculum", *Journal of Education for Business*, Vol. 90, No. 1, 18-23.

23. Kurz, Mary E., Yoder, S. Elizabeth, Zu, Ling, 2015, "Effects of Exposure on Attitudes Towards STEM Interests", *Education*, Vol 136, No 2, 229-241.

24. Bryan Pearce, Mary E. Kurz, Keith Phelan, Joshua Summers, Jorg Schulte, Wolfgang Dieminger, Kilian Funk, "Configuration Management Through Satisfiability", *Procedia CIRP*, Volume 44, 2016, Pages 204-209, ISSN 2212-8271, http://dx.doi.org/10.1016/j.procir.2016.02.127. (http://www.sciencedirect.com/science/article/pii/S2212827116004091) in Conf Proc

25. Phelan, K., Pearce, B., Summers, J., Kurz, M., 2016, "Supporting Vehicle Option Change Management through a Graph Based Visualization Tool", *Journal of Computing and Information Science in Engineering*, Vol 17, No 1, 011004-011004-15, DOI: 10.1115/1.4034472.

26. Keith T. Phelan, Joshua David Summers, Mary E. Kurz, Crystal Wilson, Bryan Wayne Pearce, Joerg Schulte, Stephan Knackstedt, ((spring) 2017) "Configuration and options management processes and tools: an automotive OEM case study", *Journal of Manufacturing Technology Management,* Vol. 28 Issue: 2, pp.146-168, doi: 10.1108/JMTM-09-2015-0079

27. Lozano, L., Smith, J.C. and Kurz, M.E., 2017, "Solving the Traveling Salesman Problem with Interdiction and Fortification" *Operations Research Letters*, Vol. 45, No. 3, 210-216.

28. Alghazi, A. and Kurz, M.E., January 2018, "Mixed Model Line Balancing with Parallel Stations, Zoning Constraints, and Ergonomics," *Constraints*. Vol. 23, No 1, 123-153.

29. Madathil, S.C., Mason, S.J., Kurz, M.E., July 2018, "On Scheduling a Photolithography Area Containing Cluster Tools", *Computers and Industrial Engineering*, Vol. 121, 177-188.

30. Pearce, B.W., Antani, K., Mears, M.L., Funk, K., Mayorga, M.E, Kurz, M.E., 2019, "An effective integer program for a general assembly line balancing problem with parallel workers and additional assignment restrictions", *Journal of Manufacturing Systems*, Vol. 50, 180-192.

31. Wang, S., Kurz, M.E., Mason, S.J. and Rashidi, E., 2019, "Two-Stage Hybrid Flow Shop Batching and Lot Streaming with Variable Sublots and Sequence-Dependent Setups", *International Journal of Production Research*, 57(22), 6893-6907.

32. Phelan, K. T., Summers, J. D., & Kurz, M. B. (2019). "Rule authoring for vehicle configuration management: an experimental study on graph-based representations." *International Journal of Mass Customisation*, 5(2), 130--146. Available online: 13 Nov 2019

33. I. Ozan Yilmazlar, Adarsh Jeyes, Alexis Fiore, Apurva Patel, Chelsea Spence, Chase Wentzky, Nicole Zero, Mary E. Kurz, Joshua D. Summers, Kevin M. Taaffe, (2020). "A case study in line balancing and simulation", 2020, *Procedia Manufacturia*, Vol 48, 71-81.

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34. Burton, A.E., M.E. Kurz, M.J. Saltzman, B. Splitter, W.C. Bridges, N.J. Calkin, "Clemson University's Rotational Attendance Plan During COVID-19", Submitted to *INFORMS Journal on Applied Analytics*, June, 2021.
35. Nitin Srinath, I. Ozan Yilmazlar, M.E. Kurz, K.M. Taaffe. "Introducing Preferences in Scheduling Applications" Submitted to *Computers & Industrial Engineering*, June 2021.
36. I. Ozan Yilmazlar, M.E. Kurz. "Adaptive Local Search Algorithm for Solving Car Sequencing Problem", Submitted to *Annals of Operations Research*. July 2021.
37. Amiri, Parastoo, Mary E. Kurz, "Discrete Particle Swarm Optimization for Flexible Flow Line Scheduling", In revision for *Computers and Industrial Engineering*.
38. Alghazi, A. and Kurz, M.E., "Mixed model sequencing problem with skip policy and station interaction", in revision for *Journal of Manufacturing Systems*
39. I. Ozan Yilmazlar, Nitin Srinath, M.E. Kurz, K.M. Taaffe. "Metaheuristic solutions in multi-objective scheduling applications", In preparation

Book Chapters (Reviewed)
1. Kurz, Mary E. "TSP Heuristics", *Encyclopedia of Operations Research and Management Science*. Accepted June 2010
2. Wentzky, C., Spence, C., Patel, A., Zero, N., Jeyes, A., Fiore, A., Summers, J. D., Kurz, M. B., Taaffe, K. M. (2019). "Application of a Controlled Assembly Vocabulary: Modeling a Home Appliance Transfer Line." *IFIP Advances in Information and Communication Technology* (pp. 439-446).

Conference Proceedings (Reviewed)
1. Phelan, K., Pearce, B., Summers, J., Kurz, M., (2016), "Rule Authoring Representation Comparison of Correctness and Consistency: An Empirical Study", TMCE 2016, Aix-En-Provence, France, May 2016, No. 69.
2. Phelan, K., Summers, J., Pearce, B., Kurz, M., (2015), "Higher Order Interactions: Product and Configuration Study on DSM Saturation", International Conference on Engineering Design, Milano, Italy, July 2015, no. 238.
3. Phelan, K., Wilson, C., Summers, J., Kurz, M., (2015), "Graph Visualization Styles for Use in Configuration Management: A User Study", International Design Engineering Conferences and Computers in Engineering Conference (ASME IDETC/CIE), Boston, MA, Aug. 1-5, DETC2015-46288.
4. Pearce, B. Kurz, M. Antani, K., Mears, L. (2014), "Finding Maximum Subsets of Relational Objects using SAT Decomposition," Proceedings of Institution of Industrial Engineers Annual Conference, Montreal, Canada, May 31-June 4, 2014, Paper No. 1987. Accepted.
5. Zu, L., Li, W., Kurz, M.E. (2014), "Integrated Production and distribution problem with pickup and delivery and multiple trips", Proceedings of Institution of Industrial Engineers Annual Conference, Montreal, Canada, May 31-June 4, 2014, Paper No. 1618. Accepted.
6. Phelan, K., Wilson, C., Summers, J., Kurz, M., (2014), "A Case Study of Configuration Management Methods in a Major Automotive OEM", International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, Buffalo, NY, DETC2014-34186.
7. Antani, K., Pearce, B., Mears, L., Renu, R., Kurz, E., Schulte, J. (2014), "Application of System Learning to Precedence Graph Generation for Assembly Line Balancing,"

Proceedings of 2014 ASME International Manufacturing Science and Engineering Conference (MSEC2014), Paper No. MSEC2014-3906, Detroit, MI, USA, June 9-13, 2014. Accepted. (3rd Place Best Paper)

8. Antani, K., Pearce, B., Kurz, E., Mears, L., Funk, K., Mayorga, M. (2013), "Manual Precedence Mapping and Application of a Novel Precedence Relationship Learning Technique to Real-World Automotive Assembly Line Balancing," Proceedings of 2013 ASME International Manufacturing Science and Engineering Conference (MSEC2013), Paper No. MSEC2013-1235, Madison, WI, USA, June 10-14, 2013.

9. Antani, K., Madadi, A., Kurz, E., Mears, L., Mayorga, M., Funk, K. (2012), "Robust Work Planning And Development Of A Decision Support System For Work Distribution On A Mixed-Model Automotive Assembly Line," Proceedings of 2012 ASME International Manufacturing Science and Engineering Conference (MSEC2012), Paper No. MSEC2012-7350, Notre Dame, IN, June 10-13, 2012.

10. Madadi, A., M.B., Kurz, S. Mason, K. Taaffe, "A Metaheuristic Approach to Supply Chain Network Design Using CVaR", Proceedings of the 2012 ISERC, May 19-23, Orlando FL (CD-ROM)

11. Chanta, S., M. Mayorga, M.B. Kurz, L. McLay, "A Minimum-Envy Covering Location Model for EMS Systems", *Industrial Engineering Research Conference Proceedings 2010*, Cancun, Mexico (CD-ROM).

12. Rupasinghe, T., M.B. Kurz, C. Washburn, A. Gramopadhye, "Improving Aircraft Maintenance Technology Education: Bloom's Taxonomy Perspective", *Industrial Engineering Research Conference Proceedings 2010*, Cancun, Mexico (CD-ROM).

13. Cakici, E., M.B. Kurz (presenter), S. Mason, "Integrated Production and Distribution Scheduling with Multiple Objectives", *Industrial Engineering Research Conference Proceedings 2010*, Cancun, Mexico (CD-ROM).

14. Madadi, A., M.B. Kurz, K. Taaffe, S. Mason, E. Pohl, S. Root, M. Sir, "Managing Disruptions in Healthcare Supply Chain Networks", *Industrial Engineering Research Conference Proceedings 2010*, Cancun, Mexico (CD-ROM).

15. Rupasinghe, T., M.B. Kurz, "Path Relinking-based Random Keys Genetic Algorithm (PR2KGA) for the Quadratic Assignment Problem (QAP)", *Industrial Engineering Research Conference Proceedings 2010*, Cancun, Mexico (CD-ROM).

16. Rupasinghe, T. D, Kurz, M. E, Sadasivan, S., Vembar, D., Washburn, C., Gramopadhye, A. K. "Pedagogical Material Development and Curriculum Assessment To Enhance Non-Destructive Inspection in Aviation Maintenance Technology", In conference proceedings of *ASEE (American Society for Engineering Education),* AC 2009-1240, Austin Texas, June 2009.

17. Rupasinghe, T., M.B. Kurz, C. Washburn, A. Gramopadhye, S. Sadasivan, D. Vembar, A. Duchowski, "Curriculum Assessment to Enhance Student Learning In Aviation Maintenance Technology" *Industrial Engineering Research Conference Proceedings 2009*, Miami, FL (CD-ROM).

18. Montgomery, M. C., Rupasinghe, T. D, Kurz, M. E, "A Hybrid Portfolio Asset Selection Strategy Using Genetic Algorithms (GA) " *Industrial Engineering Research Conference Proceedings 2009*, Miami, FL (CD-ROM).

19. Mayorga, Maria, M.E. Kurz,. and M. McElreath. "Optimal Attributes of Mixed Quality Assortments." *Industrial Engineering Research Conference Proceedings 2008*, Vancouver Canada (CD-ROM).

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20. Kurz, Mary E. and S.E. Yoder. "Genetic Algorithms for Logistic Regression." *Industrial Engineering Research Conference Proceedings 2007*, Nashville TN (CD-ROM).

21. Mason, S.J., Kurz, M.E., Pfund, M.E., Fowler, J.W., and Pohl, L.M. "Multi-Objective Semiconductor Manufacturing Scheduling: A Random Keys Implementation of NSGA-II." *Proceedings of the 2007 IEEE Symposium on Computational Intelligence in Scheduling*, 159-164

22. Randall, Robert and Mary E. Kurz. "A Genetic Algorithm for the Earliness/Tardiness Flow Shop Scheduling Problem." *Industrial Engineering Research Conference Proceedings 2006*, Orlando FL (CD-ROM).

23. Samanlioglu, F., M. Kurz, and W. Ferrell, Jr. (2006). "A Genetic Algorithm with Random-keys Representation for a Symmetric Multi-objective Traveling Salesman Problem." *Industrial Engineering Research Conference Proceedings 2006*, Orlando FL (CD-ROM).

24. D. L. Kimbler, A. K. Gramopadhye, M. E. Kurz, B. J. Melloy, Michael S. Leonard, "Implementing Curriculum Renewal from Courses through Curriculum Revision" *Industrial Engineering Research Conference Proceedings 2006*, Orlando FL (CD-ROM).

25. Randall, Patricia and Mary E. Kurz. "Serial Batch Scheduling using an Adaptive Crossover Selection Genetic Algorithm." *Industrial Engineering Research Conference Proceedings 2006*, Orlando FL (CD-ROM).

26. Kurz, M.E. and Canterbury, S. "Minimizing total flowtime and maximum earliness on a single machine using multiple measures of fitness," *Proceedings of the 2005 Genetic and Evolutionary Computation Conference (GECCO-2005)*, 803-809.

27. Kunadilok, Jakrawarn and Mary E Kurz. "Scheduling Flexible Mixed Shops with Multiple Processing Restrictions by Mixed Integer Programming." *Industrial Engineering Research Conference Proceedings 2005*, Atlanta GA (CD-ROM).

28. Kurz, Mary E., Srinivas Anandan and Sarah Canterbury. "Gene Expression for Improved Solution Representation." *Industrial Engineering Research Conference Proceedings 2005*, Atlanta GA (CD-ROM).

29. Mehendiratta, Vinay and Mary E Kurz. "Development of Flight Leg Robustness Index and its Application." *Industrial Engineering Research Conference Proceedings 2005*, Atlanta GA (CD-ROM).

30. Randall, Patricia and Mary E Kurz. "Scheduling Unrelated Parallel Machines using a Random Keys Genetic Algorithm." *Industrial Engineering Research Conference Proceedings 2005*, Atlanta GA (CD-ROM).

31. Randall, Robert and Mary E Kurz. "A MIP Model to Improve Locomotive Engineers Schedules." *Industrial Engineering Research Conference Proceedings 2005*, Atlanta GA (CD-ROM).

32. Leonard, M. S., Kurz, M. E., Kimbler, D. L., and Gramopadhye, A. K., "An Industrial Engineering Curriculum Renewal Process for the Enhancement of Industrial Engineering Degree Programs", *Proceedings of the Human Factors and Ergonomics Society Meeting*, New Orleans, 2004.

33. Leonard, Michael. S., Anand K. Gramopadhye, Delbert L. Kimbler, and Mary E. Kurz. "Validating an Industrial Engineering Curriculum Reform Process." *Industrial Engineering Research Conference Proceedings 2004*, Houston TX (CD-ROM).

34. Randall, Patricia and Mary E Kurz. "Serial Batch Scheduling on Unrelated Parallel Machines with Sequence-Dependent Setups." *Industrial Engineering Research Conference Proceedings 2004*, Houston TX (CD-ROM).

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35. Watkins, Barbara and Mary E Kurz. "An Application of Factory Physics Tools in a Complex Manufacturing Environment." *Industrial Engineering Research Conference Proceedings 2004*, Houston TX (CD-ROM – Extended Abstract).

36. Tangudu, Sarat and Mary E Kurz. "Branch-and-bound for a single parallel-batch processing machine." *Industrial Engineering Research Conference Proceedings 2004*, Houston TX (CD-ROM – Extended Abstract).

37. Randall, Robert and Mary E Kurz. "Railyard Scheduling to Improve Locomotive Engineer Schedules." *Industrial Engineering Research Conference Proceedings 2004*, Houston TX (CD-ROM – Extended Abstract).

38. Haral, U., R-W Chen, W. Ferrell, Jr., M. Kurz. "On single machine, multicriteria scheduling with nontraditional objectives and constraints." *Proceedings of the 13th International Working Seminar on Production Economics*, Igls, Austria. (2004).

39. Leonard, M.S., A.K. Gramopadhye, D.L. Kimbler, M.E. Kurz, R.J. Jacob, C. E. McLendon, and S. Regunath. "Department-Level Reform of Undergraduate Industrial Engineering Education: A New Paradigm for Engineering Curriculum Renewal." *Proceedings of the 2003 American Society for Engineering Education Conference and Exposition*, Session 2457, Nashville TN (CD-ROM).

40. Kurz, Mary E. "On the Structure of Optimal Schedules for Minimizing Total Weighted Tardiness on Parallel, Batch-Processing Machines." *Industrial Engineering Research Conference Proceedings 2003*, Portland OR (CD-ROM).

41. Kurz, Mary E. and William G. Ferrell, Jr. "Applying a Random Keys Genetic Algorithm to Bicriteria Single Machine Scheduling." *Industrial Engineering Research Conference Proceedings 2003*, Portland OR (CD-ROM).

42. Leonard, M.S., D.L. Kimbler, M.E. Kurz, A.K. Gramopadhye, R.J. Jacob, C. E. McLendon, and S. Regunath. "Reengineering Industrial Engineering – Reformulating the Roy Model for Professional Practice Today." *Industrial Engineering Solutions Conference Proceedings 2003*, Portland, OR (CD-ROM).

43. Kimbler, D.L., Michael S. Leonard, Mary E. Kurz, Anand K. Gramopadhye, and Catherine E. McLendon. "The Roy Report as a Basis for Reform of the Industrial Engineering Baccalaureate Curriculum." *Industrial Engineering Research Conference Proceedings 2003*, Portland, OR (CD-ROM).

44. Koppuraviuri, V., W.G. Ferrell, Jr., and M.E. Kurz. "Multiobjective Scheduling with Nonregular Objectives." *Proceedings of the 31st International Conference on Computers and Industrial Engineering*, San Francisco, CA (http://www.umoncton.ca/cie/Conferences/31thconf/31stICCIE/Papers/p89.pdf).

45. Pehlivan, Sertac and Mary E. Kurz. "Creating Schedules for Flexible Flowlines with Sequence-dependent Setup Times in Random Keys Genetic Algorithms" *Industrial Engineering Research Conference Proceedings 2002*, Orlando FL (CD-ROM).

46. Kurz, Mary E. "Alternative Formulations for Flexible Flowlines with Sequence-dependent Setup Times" *Industrial Engineering Research Conference Proceedings 2002*, Orlando FL (CD-ROM).

47. Kurz, Mary E. and Ronald G. Askin. "Scheduling Flexible Flow Lines with Sequence-dependent Setup Times." *Industrial Engineering Research Conference Proceedings 2001*, Dallas TX (CD-ROM).

48. Kurz, Mary Beth. "Allocating Kanbans in a Re-entrant Line." *Industrial Engineering Research Conference Proceedings 1999*, Phoenix AZ.

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Conference Proceedings (Unreviewed)

> Askin, Ronald G. and Mary E. Kurz. "Strategies for Scheduling Flexible Flow Lines with Sequence Dependent Setups and Parallel Machines." July 30, 2001. *International Conference on Production Research*, Prague, Czech Republic.

> Kurz, Mary Elizabeth and Emmanuel Fernandez-Gaucherand. "MIST: MATLAB Introductory Statistical Toolbox." *Proceedings of the 1994 Frontiers in Education Conference*. November 2-6, 1994.

PRESENTATIONS

> Ibrahim Ozan Yilmazlar (presenter), Mary E. Kurz, "Greedy Heuristics, Local Search Algorithms and Metaheuristics for Solving Car Sequencing Problem", IISE Annual Meeting 2021, Virtual May 25, 2021.

> Burton, A.E., M.E. Kurz (presenter), M.J. Saltzman, B. Splitter, W.C. Bridges, N.J. Calkin, "Accommodating Social Distancing in Classes Through Day-of-attendance Assignment During Covid-19 at Clemson University", 2021 INFORMS Business Analytics Conference, Virtual April 12, 2021.

> Nitin Srinath (presenter), Ibrahim Ozan Yilmazlar (presenter), Mary E. Kurz, Kevin M. Taaffe, "An Implementable Industry-driven Scheduling System for Parallel Machines", INFORMS Annual Meeting 2020, Virtual November 11, 2020.

> Nitin Srinath (presenter), Ibrahim Ozan Yilmazlar (presenter), Mary E. Kurz, Kevin M. Taaffe, "Scheduling Jobs with Sequence-dependent Setup Times and Conflicting Performance Measures", IISE Annual Meeting 2020, Virtual November 1-3, 2020.

> Chelsea Spence (presenter), Alexis Fiore, Adarsh Jeyes, Edwin Chase Wentzky, Ibrahim Ozan Yilmazlar, Nicole Zero, Mary Beth Kurz (presenter), Joshua D. Summers, Kevin M. Taaffe, "A Case Study in Line Balancing and Simulation", INFORMS 2019, Seattle WA, Oct 20-23, 2019.

> Kurz, M. (presenter), K. Taaffe, C. Spence, J. Summers, A. Fiore, E.C. Wentzky, A. Patel, "Transfer Line Balancing with Buffer Locations", IISE Annual Conference 2019, Orlando FL, May 18-21, 2019.

> Kurz, M. (presenter - poster), Alghazi, Anas, "Sequencing and Line Balance Interaction in Multi-worker Mixed-model Assembly Lines", INFORMS 2018, Phoenix, AZ, Nov 4-7, 2018.

> Knudson, William (presenter), M. Kurz, P. Glenn, J. Henderson, C. Hill, A. Kemp, I. Kazmier, A. Snipe, "Using Bike Route Data Visualization to Inform Bicycle Share System Design and Redesign", INFORMS 2018, Phoenix, AZ, Nov 4-7, 2018.

> Kurz, M. (presenter), Alghazi, Anas, "Mixed model sequencing in two-sided assembly lines", EURO 2018, Valencia Spain, July 8-11, 2018.

> Kurz, M. (presenter - poster), A. Bittner, N. Bryan, J. Dimon, D. Fant, P. Gorospe, J. Henderson, A. Henson, C. Hill, I. Kazmier, A. Kemp, W. Knudson, M. Lee, D. Simpson, A. Snipe, "Using Bike System Data to Set Station Inventory Targets in a Small Campus Bike Share System", 2018 Industrial and Systems Engineering Research Conference (ISERC2018), Orlando, FL, May 19-May 22, 2018.

Glenn, P. (presenter), M. Kurz, A. Bittner, N. Bryan, J. Dimon, D. Fant, P. Gorospe, J. Henderson, A. Henson, C. Hill, I. Kazmier, A. Kemp, W. Knudson, M. Lee, D. Simpson, A. Snipe, "Using Bike System Data to Set Station Inventory Targets in a Small Campus Bike Share System", 2018 Industrial and Systems Engineering Research Conference (ISERC2018), Orlando, FL, May 19-May 22, 2018.

Alghazi, Anas, M. Kurz (presenter), "A study in the impact of different constraints in mixed model line-balancing", 2018 Industrial and Systems Engineering Research Conference (ISERC2018), Orlando, FL, May 19-May 22, 2018.

Alghazi, Anas, M. Kurz (presenter), "Mixed Model Sequencing with Swimming across Station Boundaries", 2017 Industrial and Systems Engineering Research Conference (ISERC2017), Pittsburgh PA, May 20-May 23, 2017.

Kurz, M. (presenter), Ling, Zu "Heuristics for Bicycle Sharing System Repositioning Problem", 2016 Industrial and Systems Engineering Research Conference (ISERC2016), Anaheim CA, May 21-May 24, 2016.

Alghazi, Anas, M. Kurz (presenter), "A Realistic Mixed-model ALBP with Parallel Workstations, Zoning, and Ergonomic Constraints", 2016 Industrial and Systems Engineering Research Conference (ISERC2016), Anaheim CA, May 21-May 24, 2016.

Alghazi, Anas, M. Kurz (presenter), "Sequencing in Mixed Model Assembly Lines", 2016 INFORMS Annual Meeting, Nashville TN, November 13 – November 16, 2016.

Kurz, M. (presenter - poster), Ling, Zu "Heuristics for Bicycle Sharing System Repositioning Problem", 2015 INFORMS Annual Meeting, Philadephia PA, November 1 – November 4, 2015.

Alghazi, Anas (presenter), M. Kurz, "The Balancing and Scheduling of Mixed Model Assembly Lines with Realistic Constraints", 2014 Industrial and Systems Engineering Research Conference (ISERC2015), Nashville TN, May 30-June 2, 2015

Amiri, Parastoo, M. Kurz (presenter), "A Particle Swarm Optimization for Flexible Flow Line Scheduling to Minimize Makespan", 2014 Industrial and Systems Engineering Research Conference (ISERC2015), Nashville TN, May 30-June 2, 2015

Amiri, Parastoo (presenter), M. Kurz, "Particle Swarm Optimization for Scheduling Flexible Flow Line", INFORMS 2014, San Francisco.

Pearce, B. (presenter), M. Kurz, L. Mears, K. Antani, "Options-Mix Demand Specification for Robust Assembly Line Rebalancing", INFORMS 2014, San Francisco.

Zu, Ling (presenter), M. Kurz, W. Li. "Meta-Analysis in Online Engineering Education", INFORMS 2014, San Francisco.

Alghazi, Anas (presenter), M. Kurz, "Formulating a Realistic Mixed Model Assembly Line Balancing Problem", INFORMS 2014, San Francisco.

Wilson, C.L. (presenter), Kurz, M.E., Summers, J.D., Phelan, K.T., "Using Ontologies To Aid In Configuration Management in The Automotive Industry," 2013 Industrial and Systems Engineering Research Conference (ISERC2014), Montreal CA, May 31-June 3, 2014.

Pearce, B., M. Kurz, "A Constructive Heuristic for the Multi-zone Assembly Line Balancing with Physical Constraints", INFORMS 2013, Minneapolis, MN.

Zu, L., M. Kurz, "Effects of Scientific EXPO for Elementary Student's Attitudes Toward STEM Courses", INFORMS 2013, Minneapolis, MN.

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Pearce, B., Kurz, M., Mears, L., Antani, K., "Multi-Zone Assembly Line Balancing with Line-Side Storage Constraints," 2013 Industrial and Systems Engineering Research Conference (ISERC2013), San Juan, PR, May 18-22, 2013.

Pearce, B.W. (presenter), K. Antani, K. Funk, M.E. Kurz, A. Madadi, M. Mayorga, L. Mears, "Exploring the Efficient Frontier of the Multi-objective General Assembly Line Balancing Problem", INFORMS 2012 Conference, Phoenix AZ.

Sir, M. (presenter), M.B. Kurz, S. Mason, M. Pariazar, E. Pohl, S. Root, K. Taaffe, "Designing a Robust Pharmaceutical Supply Chain Network Against Disruptions", INFORMS 2011 Conference, Charlotte NC.

Kurz, M.B., Sangsawang, O. (presenter), "Tabu Search for the Uncapacitated Single p-hub Median Problem", INFORMS 2011 Conference, Charlotte NC.

Madadi, A. (presenter), M.B. Kurz, "A Metaheuristic Approach for Risk Minimization in Supply Chain Network Design Problems", INFORMS 2011 Conference, Charlotte NC.

Sangsawang, O. (presenter), M.B. Kurz, "Tabu Search for Solving the Uncapacitated Single Allocation p-hub Median Problem", IERC 2011 Conference, Reno NV.

Patel, J. (presenter), S. Whetsel, B. Patel, J. Harris, M. Teodori, M.B. Kurz, S. Shappell, "Exploring Petroleum Industry Safety by Conducting HFACS Analysis", IERC 2011 Conference, Reno NV.

Whetsel, S. (presenter), M.B. Kurz, "Using Heuristics for Logistic Regression on Aviation Accidents", IERC 2011 Conference, Reno NV.

Rupasinghe, T., M.B. Kurz (presenter), "Investigation of Parameter tuning of Metaheuristics on Quadratic Assignment Problem (QAP)", INFORMS 2010 Conference, Austin, TX.

Chanta, S. (presenter), M.B. Kurz, M. Mayorga, L. McLay, "A Tabu Search for Solving the Minimum p-envy Location Model in EMS Location Problems", INFORMS 2010 Conference, Austin, TX.

Kurz, M.B., S. Badrinayaranan (presenter), "Minimizing Makespan and Number of Tardy Jobs on a Flexible Flowshop with Unrelated Machines", INFORMS 2010 Conference, Austin, TX.

Sangsawang, O. (presenter), M.B. Kurz, "Metaheuristics for Solving the Uncapacitated Single Allocation p-hub Median Problem", INFORMS 2010 Conference, Austin, TX.

Dabhade, I. , M.B. Kurz, "Multi-Valued Subsets for Binary Partitions in Generalized Iterative Dichotomizer 3", poster at INFORMS 2010 Conference, Austin, TX.

Taaffe, K.M. (presenter), Kurz, M.E., Madadi, A., Mason, S.J., Pohl, E.A., Root, S.E., Sir, M., "Selecting Facilities while Managing Pharmaceutical Manufacturing Risks", INFORMS 2010 Conference, Austin, TX.

Hudda, A. , M.E. Kurz (presenter), S.J. Mason, "A Genetic Algorithm for Forced Transfer Bus Routing", *Industrial Engineering Research Conference 2010*, Cancun, Mexico.

Kurz, M.B. (presenter), S. Badrinayaranan, "Bi-objective Flexible Flowline Scheduling with Genetic Algorithms", *Industrial Engineering Research Conference 2010*, Cancun, Mexico.

McElreath, M. (presenter), M. Mayorga, M.B. Kurz, "Solution Representations for Assortment Planning with Locational Choice", *Industrial Engineering Research Conference 2010*, Cancun, Mexico.

Rupasinghe, T. (presenter), M.B. Kurz, "Path-Relinking (PR) as a Diversification Mechanism for Quadratic Assignment Problem (QAP)", INFORMS 2009 Conference, San Diego, CA.

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Kurz, M.B., M. Eubanks (presenter), "Analyzing and Creating Facility Layouts Using Mathematical Models in VBA" *Industrial Engineering Research Conference 2009*, Miami, FL.

Kurz, M.B. "Tutorial: Metaheuristics for Multiobjective Optimization" *Industrial Engineering Research Conference 2009*, Miami, FL.

Al Otaibi, M. (presenter), M.B. Kurz, S. Mason "Multiobjective Disaster Relief Operations Scheduling" *Industrial Engineering Research Conference 2009*, Miami, FL.

Kurz, M.B. (presenter), V. Sankaran, "Particle Swarm Optimization for Scheduling Flexible Flowlines" *Industrial Engineering Research Conference 2009*, Miami, FL.

Rupasinghe, T., M.B. Kurz, "Metaheuristics for Quadratic Assignment Problem (QAP) " *Industrial Engineering Research Conference Proceedings 2009*, Miami, FL (CD-ROM).

M.E. Kurz (presenter) "Utilizing Condor to Support Genetic Algorithm Design Research", January 9, 2009. INFORMS Computing Society Conference, Charleston SC.

Nahid Alam(presenter), Mary E. Kurz (presenter), Melissa C. Smith (presenter) "Random Number Generation on FPGA-based Computing Systems in a Condor Environment", November 18-20, 2008. Super Computing 2008 Booth, Austin TX.

Mark McElreath (presenter), Mary E. Kurz, Maria Mayorga. "Approximation Metaheuristics for Assortment Problems with Multiple Quality Levels " October 14, 2008. INFORMS 2008 Conference, Washington DC.

Thashika Rupasinghe (presenter), Mary E. Kurz "Scheduling Flexible Flow Lines using Artificial Immune Algorithms" October 14, 2008. INFORMS 2008 Conference, Washington DC.

Vinodh Sankaran (presenter), Mary E. Kurz "Investigating Random Keys Representation in a Particle Swarm Optimization Metaheuristic" October 14, 2008. INFORMS 2008 Conference, Washington DC.

M.E. Kurz (presenter) and T. Rupasinghe. "Effectiveness of solution representations using artificial immune algorithms in scheduling flexible flow lines with sequence-dependent setup times." *Industrial Engineering Research Conference 2008*, Vancouver Canada .

M.E. Kurz (presenter) "Utilizing Condor to Support Genetic Algorithm Design Research", April 30, 2008. Condor Week 2008, Madison WI.

M.E. Kurz (presenter) "Solution Representations and Solution Quality in Genetic Algorithms", February 27, 2008. Ohio State University, Department of Industrial, Welding and Systems Engineering.

M.E. Kurz (presenter) "Condor Use in Industrial Engineering", November 14, 2007. Super Computing 2007 Booth, Reno NV.

Kurz, Mary E. (presenter), Letitia Pohl, Scott Mason, John Fowler, Michelle Pfund. "Multi-objective Semiconductor Manufacturing Scheduling" November 7, 2007. INFORMS 2007 Conference, Seattle WA.

Kurz, Mary E. (presenter). "Large-scale Testing for the Design of Genetic Algorithms using High Throughput Computing" November 6, 2007. INFORMS 2007 Conference, Seattle WA.

McElreath, Mark (presenter), Mary E. Kurz, William G. Ferrell, Jr., Priyantha Devapriya. "Enumerating Solutions for an NP-hard Scheduling Problem Using Condor." November 6, 2007. INFORMS 2007 Conference, Seattle WA.

Tayfur, Esengul (presenter), Mary E. Kurz. "A Condor Application: Solving Constrained Facility Layout Problems with Genetic Algorithm." November 6, 2007. INFORMS 2007 Conference, Seattle WA.

James Cochran, Jill Hardin, Mary E. Kurz, Mark Lewis, "An Interactive Panel/Audience Discussion: Planning, Designing, and Preparing to Teach a New Course" November 7, 2006, INFORMS 2006 Conference, Pittsburgh, PA.

Randall, Patricia (presenter), Mary E. Kurz. "A Genetic Algorithm with Adaptive Crossover Probabilities." November 13, 2005. INFORMS 2005 Conference, San Francisco, CA.

Funda Samanlioglu (presenter) William G. Ferrell, Jr, Mary E. Kurz. "A Hybrid Random-Key Genetic Algorithm for a Symmetric Multi-Objective Traveling Salesman Problem." November 16, 2005. INFORMS 2005 Conference, San Francisco, CA.

Kurz, Mary E. (presenter), Srinivas Anandan and Sarah Canterbury. "Extensions of Genetic Algorithms Demonstrated in Scheduling Problems." November 15, 2005. INFORMS 2005 Conference, San Francisco, CA.

Randall, Robert (presenter), Mary E. Kurz . "Genetic Algorithm to Minimize Earliness and Tardiness of Outbound Trains in a Rail Yard." November 13, 2005. INFORMS 2005 Conference, San Francisco, CA.

Goradia, Pratik (presenter), Mary E. Kurz . "Reuse of Plastic Bottles." November 16, 2005. INFORMS 2005 Conference, San Francisco, CA.

Kurz, Mary E. "Teaching Methods of Operational Research as a Laptop Course." December 14 , 2004. Fall 2004 Laptop Pedagogy Symposium, Clemson University, Clemson SC.

Mehendiratta, Vinay (presenter), Mary E. Kurz, Michael S. Leonard. "Development of Flight Leg Robustness Index (FLRI) and Its Application." October 27, 2004. INFORMS 2004 Conference, Denver CO.

Randall, Patricia (presenter), Mary E. Kurz. "A Genetic Algorithm for Serial Batching on Unrelated Parallel Machines with Sequence-Dependent Setups." October 27, 2004. INFORMS 2004 Conference, Denver CO.

Haral, Uday (presenter), William G. Ferrell, Jr, Mary E. Kurz. "Random Keys Genetic Algorithms Applied to Dynamic Multiobjective Scheduling Problem." October 21, 2003. INFORMS 2003 Conference, Atlanta GA.

Kurz Mary E. (presenter), Michael Leonard, D.L. Kimbler, Anand K. Gramopadhye, Sarat Tangudu, J. Mullenix, S. Regunath, R. Jacob, "Using Bloom's Taxonomy to Increase Student Achievement of Course Learning Objectives." October 21, 2003. INFORMS 2003 Conference, Atlanta GA.

Randall, Patricia (presenter), Mary E. Kurz. "Batch Scheduling on Unrelated Die Stamping Machines with Sequence-Dependent Setups." October 21, 2003. INFORMS 2003 Conference, Atlanta GA.

Randall, Robert (presenter), Mary E. Kurz, June J. Pilcher. "The Need for a Model of Rail Operations to Improve Engineer Schedules." October 20, 2003. INFORMS 2003 Conference, Atlanta GA.

Samanlioglu, Funda (presenter), Sarat Tangudu, Mary E. Kurz, William G. Ferrell, Jr. "Random Keys Genetic Algorithms for a Symmetric Multi-Objective Traveling Salesman Problem." October 21, 2003. INFORMS 2003 Conference, Atlanta GA.

Kurz, Mary E. (presenter). "Using Genetic Algorithms to Minimize Total Weighted Tardiness on Parallel Batch-Processing Machines." December 5, 2002. Mathematical Sciences Algebra and Discrete Mathematics Seminar, Clemson SC.

Kurz, Mary E. (presenter). "Being Different in the Workplace." November 26, 2002. Systems and Industrial Engineering Senior Seminar, Tucson AZ.

Kurz Mary E. (presenter), Michael Leonard, Delbert Kimbler, Anand Gramopadhye, C. McLendon, Sarah Gavin, "What is OR/MS based IE?" November 20, 2002. INFORMS 2002 Conference, San Jose CA.

Kurz, Mary E. (presenter). "Improved Mixed-Integer Programming Formulations for the SDST Flexible Flowline Problem." November 17, 2002. INFORMS 2002 Conference, San Jose CA.

Kurz, Mary E. (presenter). "Effective Heuristics for Flexible Flow Line Scheduling." September 10, 2002. DOE Fellows Symposium. Washington DC.

Kurz, Mary E. (presenter) and Ronald G. Askin. "MIP Formulations for Flexible Flow Line Scheduling." November 5, 2001. INFORMS 2001 Conference, Miami FL.

Kurz, Mary E. (presenter) and Ronald G. Askin. "Two Genetic Algorithms for Flexible Flow Line Scheduling." June 19, 2001. INFORMS 2001 International Conference, Maui HI.

Kurz, Mary E. (presenter) and Ronald G. Askin. "Flexible Flowline Scheduling with Sequence-dependent Setup Times." November 6, 2000. INFORMS 2000 Conference, San Antonio TX.

Kurz, Mary E. (presenter) and Ronald G. Askin. "Parallel Machine Scheduling with Sequence-Dependent Setup Times." November 8, 1999. INFORMS Fall 1999 Conference, Philadelphia PA.

Norman, Susan K. (Chair), Douglas J. Morrice, Michael J. Fry, Mary Beth Kurz, Jennifer R. Goodhart, Brian D. Neureuther, Natasa Christodoulidou and Joel Sokol . "Panel: Issues in Doctoral OR/MS Education - A Few Words from the Student Perspective." May 5, 1999. INFORMS Spring 1999 Conference, Cincinnati OH.

SPONSORED ACTIVITY

"Archiving COVID-19 Data to Support Institutional Decision-Making Research", NSF, PI, $146,586, ($73,293), 7/1/2021 to 6/30/2022

"S-STEM: SPECTRA Student Pathways in Engineering and Computing for Transfers", National Science Foundation, Co- PI, $2,309,660 (Clemson portion – multi-site project) ($346,449), 4/1/2019 to 3/31/2024 (note that Kurz proportion has changed during the progress of this contract)

"NRT-HDR: Technology-Human Integrated Knowledge Education and Research (THINKER)", NSF, Co-PI, $2,993,421 ($299,342), 9/1/2018 to 8/31/2023 (note that Kurz proportion has changed during the progress of this contract)

"Clemson TIGERS ADVANCE: Transforming the Institution through Gender Equity, Retention, and Support", NSF, Co-Investigator, $3,405,472, ($68,109). (2016-2021)

"Product and SKU Assignment for Improved Daily Workflow - Pendleton Plant", Milliken and Company, PI, $101,138, ($50,569), 8/15/2019 to 8/14/2020

"Samsung Productivity Improvement", PI, $108,060, ($37,821), (10/1/18 – 9/30/19) – Samsung Funding (note: 9.75% overhead rate mandated due to Department of Commerce contribution imposed after contract negotiation)

"Samsung Productivity Improvement", PI, $108,060, ($37,821), (10/1/18 – 12/31/19) - SC Department of Commerce Funding (note: 9.75% overhead rate mandated due to Department of Commerce contribution imposed after contract negotiation)

"Configuration Management and Planning (Year 2)", BMW, Principal Investigator, $226,524 ($113,267), (9/1/2014-8/31/2015)

"Configuration Management and Planning", BMW, Principal Investigator, $224,090 ($112,045), (8/31/2013-7/31/2014)

"Efficient Assembly Planning Process Through Enhanced Knowledge Base", BMW, Co-Principal Investigator $592,536 ($165,910), (1/1/2013 – 6/30/2014)

"Center for Aviation and Automotive Technology Education using Virtual E-School [CA2VES]: A Resource to Meet the Aviation and Automotive Technician Workforce Needs of South Carolina"; National Science Foundation, Co-principal Investigator, $778,721 ($62,298), (9/1/2011 – 8/31/2015).

"Optimal Work Distribution"; BMW, Principal Investigator (Year 2), Co-Principal Investigator (Year 1), $471,552 ($155,612), (1/1/2011 – 12/31/2013)

"Ensuring Continuity of Care: A Quantification of Risk in the Healthcare Supply Chain"; National Science Foundation, Fundamental Research Supplement Opportunity for I/UCRCs, in partnership with University of Arkansas and University of Missouri, $150,000 ($18,750) (2009-12/31/2011).

"Visual Inspection Laboratory (VisIns): Use of Interactive 3D Knowledge Objects to Promote Student Learning in Aviation Maintenance Technology"; National Science Foundation, Co-Principal Investigator, $468,447, ($117,112), (3/15/2007 to 5/31/2011).

"Optimization of Empty Railcar Movements"; IntelliTrans, Principal Investigator, $69,464, ($55,571), (4/1/2007 to 12/31/2007).

"Logistics Improvements at Lockheed Martin", Lockheed Martin Corporation, Co-Principal Investigator, $56,933, ($27,043), (9/5/2005 to 12/31/2006).

"MARC Testing Facility Scheduling System, Phase 2, Part 1", Unspecified Sponsor, Principal Investigator, $7,861, ($7,861), (11/1/2004 to 6/30/2005).

"Collaborative Research: Integrating Information Technology in the Industrial Engineering Curriculum", National Science Foundation, Co-Principal Investigator, $29,943, ($9,981), (2/15/2004 to 1/31/2005).

"MARC Testing Facility Scheduling System", Unspecified Sponsor, Principal Investigator, $3,183, ($3,183), (6/15/2003 to 11/15/2003).

"Department-Level Reform of Undergraduate Industrial Engineering Education: A New Paradigm for Curriculum Renewal", National Science Foundation, Principal Investigator, $95,036, ($35,638.50), (10/1/2002 - 9/30/2005).

OTHER SPONSORED ACTIVITY

"Project GADGET: Genetic Algorithms Designed by underGraduate Engineering Teams", Clemson Dean of Undergraduate Studies – Creative Inquiry, Principal Investigator, $15,000, ($15,000), (1/1/2007 to 5/15/2011).

"Faculty Laptop Awards Program", Clemson Collaborative Research Environment, $2000, ($2000), (2002).

"Modeling Flexible Flowlines with Sequence-dependent Setup Times," Clemson Research Grant Committee, Principal Investigator, $3000, ($3000), (2001-2002).

Travel Grant: "Flexible Flowline Scheduling with Sequence-dependent Setup Times," The University of Arizona Graduate and Professional Student Council, Principal Investigator, $450, ($450), (2000).

Travel Grant: "MIST: MATLAB Introductory Statistical Toolbox," The University of Arizona Foundation, Principal Investigator, $700, ($700), (1994).

GRADUATE STUDENT ADVISING

Doctoral Graduates

Mehendiratta, Vinay (PhD), "Increasing Crew Scheduling Robustness through a Flight Leg Characteristics Index", (May 2005)

Randall, Patricia, (PhD), "Adaptive Crossover Selection in Genetic Algorithms: Its Application to Scheduling of Serial Batches on Unrelated Parallel Machines", (May 2006)

Randall, Robert, (PhD), "Single and Multiple Objective Scheduling Methods for Railyards with Earliness and Tardiness Concerns", (May 2006)

Kunadilok, Jakrawarn, (PhD), "Heuristics for Scheduling Reentrant Flexible Jobshops with Sequence-Dependent Setup Times and Limited Buffer", (August 2007)

Yoder, Beth, (PhD), "Genetic Algorithms for Logistic Regression", (December 2009)

Rupasinghe, Thashika, (PhD), "An Investigation of Metaheuristics Using Path- Relinking on the Quadratic Assignment Problem", (December 2010)

Sangsawang, Ornurai, (PhD), "Metaheuristics for Hub Location Problems", (August 2011)

Madadi, Omid, (PhD), "Supply chain network design: Risk-averse vs. risk-neutral decision making", (December 2012)

Namouz, Essam (PhD co Advised with Joshua Summers, Mechanical Engineering), "Automated Assembly Time Estimation Method", (August 2013)

Pearce, Bryan, (PhD), "A Study on General Assembly Line Balancing Modeling Methods and Techniques" (December 2015)

Zu, Ling (PhD), "A Study of the Static Bicycle Repositioning Problem with a Single Vehicle" (December 2016)

Alghazi, Anas (PhD), "Balancing and Sequencing of Mixed Model Assembly Lines", (August 2017)

Master's Graduates

Pehlivan, Sertac, (MS), "Improved Methods for Flexible Flowline Scheduling", (August 2002)

Tangudu, Sarat, (MS), "Branch and Bound for Parallel Batch Processing Machines", (August 2004)

Watkins, Barbara, (MS), "Factory Physics Analysis Tool and Case Study", (December 2004)

Goradia, Pratik, (MS), "Evaluating the Impact of Deposit Rates in a Closed Loop Supply Chain", (December 2006)

Sankaran, Vinodh, (MS), "A Particle Swarm Optimization Using Random Keys for Flexible Flow Shop Scheduling Problem with Sequence Dependent Setup Times", (December 2009)

Dabhade, Indraneel, (MS), "Multivalued Subsets Under Information Theory", (August 2011)

Amiri, Parastoo, (MS), "Discrete Particle Swarm Optimization for Flexible Flow Line Scheduling," May 2015

Current PhD Graduate Advising

Ibrahim Ozan Yilmazlar

Chelsea Spence

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UNDERGRADUATE HONORS STUDENT ADVISING

Undergraduate Honors Thesis Advising

Long, Samuel A., "Incorporating Laptops into an Introductory Operations Research Course", (May 2003)

Runkle, Mary J., "Problem Based Search Spaces with Johnson's Rule for Flexible Flow Lines", (May 2004)

Canterbury, Sarah A., "Gene Expression in Genetic Algorithms", (May 2005)

Slagh, Lisa, "Genetic Algorithms in Facility Location", (May 2008)

Grooms, Lindsey, "Genetic Algorithms in Facility Location", (May 2008)

Montgomery, Miranda, "A Hybrid Portfolio Asset Selection Strategy Using Genetic Algorithms ", (December 2008)

Eubanks, Greer, "An Interactive Facility Layout Optimizer Using Genetic Algorithms and VBA", (May 2009)

Whetsel, Sean, "Using Metaheuristics for Logistic Regression on Aviation Accidents", (May 2011)

UNDERGRADUATE (NON-HONORS) RESEARCH

Graduated Creative Inquiry Students

Before 2018	*2018 and later (Bike Share)*
Doane, Richard	Bittner, April
Pruitt, Michael	Dimon, Joshua
Hecht, Patrick	Fant, David
Hudda, Anand	Glenn, Paul
Harris, Justin	Gorospe, Patrick
Patel, Bhavik	Henderson, Jack
Patel, Jainee	Henson, Alyssa
Teodori, Matthew	Hill, Ciara Hill
Gombert, Jacey	Kazmier, Isabella
Ivanov, Robert	Kemp Anderson
Wagner, Kyle	Knudson, William
	Lee, Matthew
	Snipe, Audra

TEACHING

Courses Developed at Clemson University

IE 440, Decision Support Systems, F06

IE 4460/6460 Modeling and Analysis of Manufacturing Systems, F15

IE 6840, Intermediate Engr Econ, SumII15

IE 865, Facilities Planning and Design, S07

IE 881, Metaheuristics, S08

IE 851, Data Collection, Analysis, and Interpretation, S09

IE 852, Modeling and Decision Making, SumI-SumII09

Courses Taught at Clemson University

Note: course numbers changed from 3 to 4 digits but the first three digits are the same

IE 280, Deterministic Operations Research
F01, F02, S03 (as IE 380), S04, S05, S06, S07, S08, S09, F10, F11, F12

IE 360 / 3600, Industrial Applications of Probability and Statistics
SumI07, SumI08, F14, F15, S17, SumI17, S18, SumI18, SumI19, SumI20, SumI21

IE 3810, Probabilistic Operations Research
Spring 14

IE 384/3840 , Engineering Economic Analysis
SumII02, SumI04, SumI-SumII06, SumI-SumII07, SumI-SumII08, SumI-SumII09, SumI-SumII10, Long Summer 11, Long Summer 12, Long Summer 13, Long Summer 14, S20

IE 386, Production Planning and Control
S02, F02, S03 (as IE 486), F03, S04, S10

IE 440/4400, Decision Support Systems
F06, F07, F08, F09, F10, F11, F12, F13, F14, S18, S19, S20

IE 6840, Intermediate Engr Econ
SumII15, S16

IE 803, Engineering Optimization and Applications
F03, F04, F05

IE 851 / 8510, Data Collection, Analysis, and Interpretation
S09, S10, F10, F11, F12, F13, F14, F15, F16, F17, F18, F19, F20

IE 852, Modeling and Decision Making
SumI-SumII09, SumI-SumII10, S11, S12, S13, S14

IE 865, Facilities Planning and Design
S07, F07, F08

IE 881/8810, Metaheuristics
S08, F09, S11, S13, S19

IE 893, Special Topics in IE
Integer Programming Applications, S03
Genetic Algorithms, S06

Courses Taught at The University of Arizona
SIE 305, Introduction to Engineering Probability and Statistics
F98, F99, F00

UNIVERSITY AND PUBLIC SERVICE
Positions Held

- Professional Service: President, IIE Operations Research Division Board, (Summer 2015 – Summer 2016)
- Professional Service: President-Elect, IIE Operations Research Division Board, (Summer 2014 – Summer 2015)
- Professional Service: Junior Vice-President of Meetings, INFORMS Forum on Women in Operations Research and Management Science , (Spring 2012 – Spring 2014)
- Professional Service: Member, IIE Operations Research Division Board, (Summer 2011 – Summer 2013)
- Professional Service: Member, IIE Scholarship Fund Trustee, (Spring 2011 – Spring 2014)

- Professional Service: Industrial Engineering Program Evaluator for ABET (Fall 2008 –)
- Professional Service: Secretary / Treasurer, INFORMS Forum on Education (Fall 2004 – Fall 2007)
- University of Arkansas, 2007 – 2010, Adjunct Assistant Professor of Industrial Engineering
- Tau Beta Pi South Carolina Alpha Student Chapter Advisor (Fall 2007 –)
- Alpha Pi Mu (Industrial Engineering Honor Society) Clemson Student Chapter Advisor (Fall 2008 – Fall 2011)

Committees
- University: Member of Academic Council, representing CECAS (2017-)
- University: Faculty Manual Consultant (Fall 2017 -)
- University: IRB Member (August 2012 –)
- University: Member of National Scholars Program Selection Committee (Spring 2018)
- University: President of Faculty Senate (April 2016 – April 2017)
  - Member of many committees as a result, such as search committees for University-level staff, ClemsonForward Steering, Academic Council, etc.
- University: Vice-President / President-Elect of Faculty Senate (April 2015 – April 2016)
- University: Member, Undergraduate Curriculum Committee, Clemson University (Fall 2008 – Summer 2015)
- University: Chair of Faculty Senate Policy Committee (April 2013 – April 2015)
- University: Faculty Senator, Faculty Senate (April 2012 – April 2017)
- University: Member, Creative Inquiry Committee (Fall 2009 – Fall 2011)
- University: Chair, Educational Technology Council (Fall 2009 –Spring 2011)
- University: Member, Educational Technology Council (Fall 2007 – Spring 2009)
- University: Member, IT Council (Fall 2009 – Spring 2011)
- University: Member, IT Task Force (Fall 2008 – Spring 2009)

- College: Member, Search Committee for Interim Associate Dean of Undergraduate Studies, College of Engineering, Computing and Applied Sciences, Clemson University (Winter 2016)
- College: Chair, Curriculum Committee, College of Engineering and Science, Clemson University (Fall 2009 – Summer 2015)
- College: Member, Curriculum Committee, College of Engineering and Science, Clemson University (Fall 2007 – Summer 2015)
- College: Member, Computer Resource Committee, College of Engineering and Science, Clemson University (Fall 2002 – Spring 2007)
- College: Member, Teaching Awards Committee, College of Engineering and Science, Clemson University (Spring 2007, Spring 2008)
- College: Member, Dean's Faculty Advisory Board, College of Engineering and Science, Clemson University (Fall 2003 – Spring 2005)

- Department: Member, Faculty Search Committee, Department of Industrial Engineering, Clemson University (Fall 2019 – Spring 2020)

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- Department: Chair, Interim Department Chair Search Committee, Department of Industrial Engineering, Clemson University (Fall 2018)
- Department: Member, Faculty Search Committee, Department of Industrial Engineering, Clemson University (Fall 2018 – Spring 2019)
- Department: Chair, Assessment Committee, Department of Industrial Engineering, Clemson University (Fall 2017 -)
- Department: Member, Undergraduate Committee, Department of Industrial Engineering, Clemson University (Fall 2016 –)
- Department: Chair, Faculty Search Committee, Department of Industrial Engineering, Clemson University (Fall 2013 – Spring 2014)
- Department: Chair, Departmental Curriculum Committee, Department of Industrial Engineering, Clemson University (Fall 2007 – Summer 2015)
- Department: Chair, Fluor Endowed Chair Search Committee, Department of Industrial Engineering, Clemson University (Fall 2008 – Spring 2010)
- Department: Member, Faculty Search Committee, Department of Industrial Engineering, Clemson University (Spring 2011)
- Department: Member, Undergraduate Committee, Department of Industrial Engineering, Clemson University (Spring 2003 – Spring 2007)
- Department: Member, Scholarships, Honors, and Awards Committee, Department of Industrial Engineering, Clemson University (Spring 2003 – Spring 2006)
- Department: Co-chair, Computer and Resources Committee, Department of Industrial Engineering, Clemson University (Fall 2003 – Spring 2005)
- Department: Member, Two-Year Department Chair Reappointment Review Committee, Department of Industrial Engineering, Clemson University (Spring 2005)
- Department: Member, Faculty Search Committee, Department of Industrial Engineering, Clemson University (Fall 2003)
- Department: Member, Department Chair Search Committee, Department of Industrial Engineering, Clemson University (Summer 2003 – Fall 2003)
- Department: Member, Graduate Committee, Department of Industrial Engineering, Clemson University (Fall 2002 – Fall 2003)
- Department: Member, Two-Year Department Chair Reappointment Review Committee, Department of Industrial Engineering, Clemson University (Spring 2003)
- Department: Member, Faculty Search Committee, Department of Industrial Engineering, Clemson University (Fall 2002 – Spring 2003)

Other Service
- Fundamentals of Engineering Review Instructor, Engineering Economics, Clemson University, 20 semesters, from Fall 2003 – Spring 2013 (when the program was placed on hold).
- Alumni Representative, School Council of University High School, (Tucson, Arizona) (Fall 1995 – Spring 2001)
- Winter Reunion Chair, Alumni Association for University High School (Tucson, Arizona) (Fall 1995 – Summer 1999)
- Treasurer, Alumni Association for University High School (Tucson, Arizona) (Fall 1995 – Summer 1996)

- President, Engineering Student Council, The University of Arizona (Summer 1994 – Spring 1995)
- Treasurer, Tau Beta Pi Arizona Alpha Chapter (Summer 1994 – Spring 1995)
- Fundraising Chair, Engineering Student Council, The University of Arizona (Summer 1993 – Spring 1994)
- Recording Secretary, Tau Beta Pi Arizona Alpha Chapter (Summer 1994 – Spring 1995)

PROFESSIONAL ACTIVITIES: *Journal Manuscript Reviewer; others including these*
> *Annals of Operations Research*
> *Asia-Pacific Journal of Operational Research*
> *Computers & Industrial Engineering*
> *Computers & Operations Research*
> *European Journal of Operational Research*
> *IEEE Transactions on Electronics Packaging*
> *IEEE Transactions on Intelligent Transportation Systems*
> *IIE Transactions*
> *International Journal of Industrial Ergonomics*
> *International Journal of Modelling and Simulation*
> *International Journal of Production Economics*
> *International Journal of Production Research*
> *Journal of Heuristics*
> *Journal of Manufacturing Systems*
> *Journal of the Operational Research Society*
> *Journal of Scheduling*
> *Journal of Statistical Computation and Simulations*
> *Manufacturing Systems*
> *Mathematical and Computer Modelling*
> *Naval Research Logistics*
> *Omega*
> *Operations Research*
> *Production Planning and Control*

HONORS AND AWARDS

Honorary Organizations
- Tau Beta Pi (1993)
- Alpha Pi Mu (2004)

Awards
- Honorary Alumna, Clemson University, Spring 2021
  - https://alumni.clemson.edu/dr-mary-e-kurz-named-honorary-alumna/
- Class of '39 Award for Faculty Excellence, Spring 2020
  - https://newsstand.clemson.edu/clemson-associate-professor-mary-e-kurz-to-receive-class-of-39-award-for-excellence/
- Clemson University Martin Luther King Jr. Award for Excellence in Service, January 22, 2019

- o https://blogs.clemson.edu/inside-clemson/inside-news/martin-luther-king-jr-award-for-excellence-in-service-recipients-announced/?fbclid=IwAR1fCxJiMReMAYcmyo_RN8Ox-fsGn858QUL59OtKxZToVDN0gYt2aflXJxA
- Alan Schaffer Faculty Senate Service Award, Clemson University Faculty Senate, April 2018
- Esin Gulari Leadership and Service Award, College of Engineering and Science, Clemson University, May 2016
- ASME MSEC Conference, 2014, Third Place in Best Paper (with K. Antani, B. Pearce, l. Mears, R. Renu, J. Schulte), (June 2014)
- Professor of the Year, Department of Industrial Engineering, Clemson University (April 2013)
- Award for Faculty Excellence, Clemson University Board of Trustees, (April 2009)
- Institute of Industrial Engineers, IERC 2008 Best Paper with Maria Mayorga and Mark McElreath, Production Planning and Scheduling Track, Industrial Engineering Research Conference, (May 2008)
- Award for Faculty Excellence, Clemson University Board of Trustees, (April 2006)
- Institute of Industrial Engineers, Operations Research Division, Annual Award for Excellence in the Teaching of Operations Research (April 2005)
- Byar's Prize for Excellence in Teaching, College of Engineering and Science, Clemson University (April 2005)
- Professor of the Year, Department of Industrial Engineering, Clemson University (April 2005)
- Professor of the Year, Department of Industrial Engineering, Clemson University (April 2004)
- Professor of the Year, Department of Industrial Engineering, Clemson University (April 2003)
- Award for Excellence at the Student Interface for TAs in the Department of Systems and Industrial Engineering, The University of Arizona (May 2000)
- A. Wayne Wymore Award for Outstanding Systems and Industrial Engineering Graduate, The University of Arizona, (May 1995)

Fellowships
- Department of Energy Predoctoral Fellowship in Integrated Manufacturing and Processing (Fall 1998 – Spring 2001)
- GAANN (Graduate Assistance in Areas of National Need) Fellowship (Fall 1996 – Spring 1998)
- Graduate College Fellowship, The University of Arizona (Fall 1996 – Spring 1998)
- Graduate Academic Resident Scholarship, The University of Arizona (Fall 1996 – Spring 1998)
- Patricia Roberts Harris Fellowship (Fall 1995 – Spring 1996)
- National Merit Scholarship (Fall 1991 – Spring 1995)
- Baird Scholarship (Fall 1991 – Spring 1995)