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PERSONAL INFORMATION

Birth Date: January 19, 1962
Citizenship: United States

EDUCATION

Ph.D., 1993   Industrial Engineering
                Department of Industrial Engineering and Operations Research
                University of California, Berkeley
                Berkeley, California 94720

M.S., 1987   Industrial Engineering
                School of Industrial Engineering
                Purdue University
                West Lafayette, Indiana 47907

B.S., 1984   Industrial Engineering
                School of Industrial Engineering
                Purdue University
                West Lafayette, Indiana 47907

PROFESSIONAL EXPERIENCE

8/10   **Director of the Daniel J. Epstein Institute**
2/05 –   **Professor**
5/99 – 2/05   **Associate Professor**
1/93 – 5/99   **Assistant Professor**
                University of Southern California; Los Angeles, CA
                Develop and teach courses as well as conduct research in the area of production
                scheduling

9/88 - 1/90	**Analyst**
	Hewlett Packard; Palo Alto, California
	Developed planning models to estimate efficient parameters for circuit board assembly operations; system parameters evaluated include labor requirements, lot sizes, equipment usage, and demand levels

7/87 - 8/88	**Member of Technical Staff**
	Bell Communications Research; Red Bank, New Jersey
	Developed operations systems plans to support the telephone company operations; work involved assessing the impact on operations of introducing new features and services to the telephone network

1/84 - 5/87	**Senior Systems Analyst**
	Pritsker Corporation; West Lafayette, Indiana
	Consultant to large industrial organizations; Work involved design and development of computer simulation models to evaluate and analyze manufacturing systems; Systems modeled include FMS, AS/RS, and AGV

RESEARCH INTERESTS

Production scheduling, modeling of manufacturing systems, simulation, and operations research applications to large complex systems

FUNDED RESEARCH

Department of Transportation, University Transportation Centers Program and Caltrans, "Metropolitan Transportation Center", 2017-2022, $12,500,000. To fund a center that focuses on metropolitan transportation research issues in terms of both freight and urban mobility. (Co-Principal Investigator, w/Genevieve Giuliano, Petros Ioannou, Marlon Boarnet, Tom O'Brien, and Seiji Steimetz)

National Science Foundation, "CPS: Synergy: Load Balancing for Multimodal Freight Transportation," 2015-2018, $800,000. To study different strategies for balancing freight on the transportation network. (Co-Principal Investigator, w/Genevieve Giuliano, and Petros Ioannou)

Department of Transportation, University Transportation Centers Program and Caltrans, "Metropolitan Transportation Center", 2013-2016, $6,127,768. To fund a center that focuses on metropolitan transportation research issues in terms of both freight and urban mobility. (Co-Principal Investigator, w/Genevieve Giuliano, Petros Ioannou, Marlon Boarnet, Tom O'Brien, Marianne Venieris, Anastasios Chassiakos, and Seiji Steimetz)

National Science Foundation, "Supply Chain Consolidation and Cooperation in the Agriculture Industry," 2013-2016, $320,000. To study different strategies for consolidating delivery for perishable products. (Principal Investigator, w/Alejandro Toriello and Nelson Uhan)

Volvo Research and Educational Foundations, "METROFREIGHT: The Local/Global Challenge of Urban Freight," 2013-2018, $3,700,000. To build a large scale, international research enterprise on urban freight. (Co-Principal Investigator, w/Genevieve Giuliano, Petros Ioannou, Tom O'Brien, Laetitia Dablanc, Jean-Paul Rodrigue, and Jeong Seung Joo)

Federal Highway Administration, "Seamless Multi-Modal Connectivity Colloquium," 2012-2013, $39,500. To organize a workshop with academic, government, and industry representatives on the viability of ridesharing to reduce congestion. (Principal Investigator)

Federal Transit Administration, "Technical and Institutional Evaluation of the Southern California Regional Rail Authority Positive Train Control Deployment Project," 2011-2013, $900,000. A two year study to assess the effectiveness of the PTC deployment for the Metropolitan Transportation Authority. (Co-Principal Investigator, w/P. Ioannou, J. Moore, N. Meshkati, and U. Mitra)

California Cut Flowers Commission, "Evaluation of Transportation Practices in the California Cut Flower Industry," 2011, $100,000. A study to improve the supply chain for the California cut flower industry. (Principal Investigator, w/Alejandro Toriello and James Moore)

Federal Highway Administration, "Engineering Tomorrow's Transportation Market," 2010-2013, $1,000,000. A three year study to develop a new transportation marketplace that treats every car like a taxi. (Principal Investigator, w/Sven Koenig and Fernando Ordonez)

METRANS, "Optimizing Courier Services for the Delivery of Medical Specimens Devices," 2010-2011, $78,487. This research focuses on developing routing algorithms for the delivery of medical specimens. (Co-Principal Investigator, w/Fernando Ordonez)

METRANS, "Dynamic Scheduling of Trains in Densely Populated Congested," 2009-2010, $83,033. A study to develop algorithms for the dynamic dispatching of trains. (Principal Investigator)

Caltrans, "Compressed Natural Gas (CNG) Sweeper Operation Evaluation," 2008-2009, $78,474. A study to assess the productivity and life cycle cost of using the CNG sweepers with the diesel powered sweepers. (Principal Investigator)

Department of Homeland Security/CREATE, "Supply Chain Management of the Strategic National Stockpiles," 2007-2009, $175,000. The purpose of this research activity is to develop a supply chain model of the vendor managed inventory that supplies the SNS. (Lead Investigator, w/Fernando Ordonez)

METRANS, "Strategies for Effective Rail Track Capacity Usage," 2006-2008, $180,000. A study to develop planning models for effective rail trackage usage. (Principal Investigator, w/ Fernando Ordonez, and Robert Leachman)

METRANS, "Better Delivery/pick Up Routes in the Presence of Uncertainty," 2006-2007, $85,000. A study to investigate the effectiveness, in a practical setting, of vehicle routing

solutions that account for uncertainty in demand and travel times (Co-Principal Investigator, w/Fernando Ordonez)

Los Angeles Care, "Collaborative to Improve Patient Flow Through Efficient Service Delivery and Resource Utilization," 2005-2006, $200,000. A study to improve the flow of patients and the scheduling of outpatient and radiology services in order to improve the overall efficiency. (Co-Principal Investigator, w/Randolph Hall).

Los Angeles County, "Transportation Plan for Strategic National Stockpile (SNS) – Deployment Within Los Angeles County," 2005, $70,000. A study to develop transportation routing plans for distribution of medical supplies in the event of an emergency (Co-Principal Investigator, w/Randolph Hall).

Los Angeles County, "Collaborative to Improve Patient Flow Through Efficient Service Delivery and Resource Utilization," 2004-2005, $100,000. A study to improve the flow of patients in hospitals in order to improve the overall efficiency. (Co-Principal Investigator, w/Randolph Hall).

National Science Foundation, "The Robust Vehicle Routing Problem," 2004-2006, $200,000. A two year project to apply robust optimization techniques to solving the vehicle routing problem. (Co-Principal Investigator, w/Fernando Ordonez).

Department of Homeland Security, "Center for Risk and Economic Analysis (CREATE)," 2004-2007, $525,000. The purpose of this research activity is to develop a family of emergency planning models for the distribution of inventoried items such as vaccinations during the three-wave response to a major unexpected event. (Lead Investigator, w/Fernando Ordonez)

PATH – CALTRANS, "Productivity and Cost-Effectiveness of Demand Responsive Transit Systems," 2003-2004, $120,497. A grant to study operational polices that can lead to the reduction of deadhead miles in demand responsive transit systems. (Principal Investigator, w/Fernando Ordonez)

PATH – CALTRANS, "Factors Influencing Productivity and Operating Cost of Demand Responsive Transit Systems," 2003-2004, $84,750. A benchmarking study to determine factors that impact productivity and operating cost of demand responsive transit systems. (Co-Principal Investigator, w/Kurt Palmer)

METRANS, "A Novel Approach to Routing and Dispatching Trucks Based on Partial Information in a Dynamic Environment," 2003-2004, $90,000. A grant to study dynamic routing strategies for the trucking industry. (Principal Investigator, w/ Petros Ioannou).

National Science Foundation, "Innovative Feeder Transit Services: Mobility Allowance Shuttle Transit (MAST)," 2003-2005, $200,000. A grant to develop algorithms for a fixed route shuttle that allows for minor deviations from the route. (Principal Investigator, w/K. Palmer and S. Bukkapatnam).

National Science Foundation, "A Methodology for Real-Time Train Dispatching in High Density Urban Networks," 2003-2005, $150,000.   A grant to develop real-time train deadlock-free dispatching strategies. (Principal Investigator, w/R. Leachman and S. Bukkapatnam)

National Science Foundation, "Modeling Eco-Industrial Symbiosis: Greening of Regional Industrial Materials Networks," 2002, $110,000.   A grant to develop a transportation optimization model considering environmental factors through a reverse logistics methodology. (Co-Principal Investigator, w/M. Rahimi and M. Sahimi)

METRANS, "Development of a Methodology for Joint Optimization of Service and Life-Cycle Environmental Impact Assessment of Transportation Systems," 2002, $50,000. A grant to study the impact of adding environmental considerations into vehicle routing decisions. (Co-Principal Investigator, w/M. Rahimi).

National Science Foundation, "Dynamic Cargo Assignment and Route Planning in the Trucking Industry, 2002, $99,933. A grant to study the dynamic aspects of routing trucks in metropolitan areas. (Co-Principal Investigator, w/Randy Hall and Petros Ioannou)

National Science Foundation, "Social Intelligence in Interfaces for Educational Software," 2001-2004, $1,400,000.   A grant to develop socially intelligent agents and to integrate them into the VFTS. (Co-Principal Investigator, w/Lewis Johnson, Jeff Rickel, Christoph von der Malsburg and Richard Mayer)

PATH – CALTRANS, "Benchmarking Best Practices of Demand Responsive Transit Systems," 2000-2001, $86,190. A grant to study the factors that contribute to optimal performance of demand responsive transit systems. (Principal Investigator, w/Kurt Palmer and Randy Hall)

METRANS, "Distributed Architecture for Real-time Coordination in Transit Networks," 2000 - 2001, $45,000. A grant to study optimal holding strategies for fixed bus route networks. (Co-Principal Investigator, w/Satish Bakkapatnam)

National Science Foundation, "A Network Enabled Virtual Factory System for Manufacturing Education," 1999-2002, $800,000. A three-year grant to develop a full-scale virtual factory teaching system. (Principal Investigator of School of Engineering Portion, w/J. Rickel, L. Johnson, George Bekey, and Ed Kazlauskas)

PATH – CALTRANS, "Evaluating the Impact of ITS on Personalized Public Transit," 1999-2000, $70,827. A grant to investigate the cost and benefits of different system designs of personalized public transit. (Principal Investigator, w/Randy Hall).

PATH – CALTRANS, "ATIS for Ground to Air Connectivity," 1999-2000, $84,852. A grant to study how ITS can be utilized to improve the connectivity between truck and air for the overnight parcel industry. (Co-Principal Investigator, w/Randy Hall).

METRANS, "A Task Decomposition Model for Dispatchers in Dynamic Scheduling of Demand Responsive Transit Systems," 1999-2000, $50,000. A grant to study the decomposition of the tasks of dispatchers in the para-transit industry. (Principal Investigator, w/Mansour Rahimi)

National Science Foundation, "Real-time Scheduling of Demand Responsive Transportation Services," 1998-2001, $334,959. A three year grant to develop real-time scheduling algorithms to control vehicles in demand responsive transportation systems. (Co-Principal Investigator, w/Randy Hall).

Department of Defense, "Center for Commercial Deployment of Transportation Technologies," 1998-1999, $325,000. A grant to benchmark best practices of top performing ports. (Co-Principal Investigator, w/ Petros Ioannou, Randy Hall, Gerald Fleischer, and Elliot Axelband)

Charles Lee Powel Foundation. "Powell Foundation Research Grant," 1997-1999, $50,000. A two year award to support research activities of a faculty member. (Principal Investigator)

PATH - CALTRANS, "Efficient Transit Service Through the Applications of ITS," 1997-1999, $128,834. A grant to investigate the application of ITS technologies to improve overall efficiency of transit operations. (Co-Principal Investigator, w/ Randy Hall and Diane Bailey)

National Science Foundation, "Taming the Complexities of Modern Manufacturing: A Network Enabled Virtual Factory to Support Exploration and Learning in Engineering Education," 1996-1998, $237,298. A grant to design a virtual factory to support undergraduate education. (Co-Principal Investigator, w/ Diane Bailey, Sushil Verma, George Bekey, and Ed Kazlauskas)

Federal Transit Administration, "Real-time Scheduling of Demand Responsive Transit Services Using ITS," 1997-1998, $25,892. A one year grant to investigate the use of ITS technologies for real-time scheduling of demand responsive transit services such as paratransit. (Principal Investigator)

Southern California Studies Center, "An Application of Scheduling Bus Timed Transfer for LAC/MTA," 1997, $5,000. A six month grant to use LAC/MTA as a testbed for the application of scheduling algorithms employing advance communication technologies. (Principal Investigator)

Society of Manufacturing Engineers, "A Real-time Dynamic Scheduler for Batch Chemical Manufacturing," 1996-1997, $10,000. A one year grant to develop real-time scheduling algorithms for batch chemical manufacturing. (Principal Investigator)

PATH - CALTRANS, "ITS Application to Timed Transfers," 1995-1997, $52,655. A grant to study the feasibility of using ITS to schedule timed transfer bus connections. (Co-Principal Investigator, w/Randy Hall)

Department of Defense, "Center for Commercial Deployment of Transportation Technologies," 1995-1996, $187,415. A one year grant to develop a JIT simulator for fast ship transport. (Co-

Principal Investigator, w/ Petros Ioannou, Randy Hall, James Moore, Behrokh Khoshnevis, and Elliot Axelband)

USC Faculty Research and Innovation Fund, "A Factory Scheduling Policy Based on an Optimization Modeling Methodology," 1993-1994, $15,000. A one year grant to develop computational feasible models to do shop floor scheduling. (Principal Investigator)

TEACHING EXPERIENCE

ISE 330	Operations Research I (Deterministic Systems)
ISE 331	Operations Research II (Stochastic Processes)
ISE 410	Production II: Planning and Scheduling
ISE 513	Inventory Systems
ISE 514	Industrial Scheduling
ISE 650	PhD Seminar

PROFESSIONAL SOCIETIES AND HONORS

Outstanding Engineering Educator Award, Orange County Engineering Council (2011)
IIE Fellow (2008)
2007 Transportation Science & Logistics Best Paper Prize (2007)

IIE Operations Research Division Excellence in Teaching Award (2007)
USC Associates Award for Excellence in Teaching (2001)
TRW Outstanding Teacher of the Year Award in the School of Engineering (1998)
Alpha Pi Mu/Omega Rho Outstanding Teacher of the Year in ISE (2010, 2008, 2000)
Alpha Pi Mu/Omega Rho Outstanding Teacher of the Year in ISE (1999, 1998, 1995)

Charles Lee Powell Foundation Junior Faculty Award (1998)
Society of Manufacturing Engineers Research Initiation Award (1996)
Zumberge Fellow (USC Research Award, 1994)
1993 Finalist for *IIE Best Dissertation Award*
Received Bachelor's Degree with *highest distinction* from Purdue University
Listed in Who's Who in Science and Engineering in 1999

Alpha Pi Mu (Industrial Engineering Honor Society)
Phi Kappa Phi (General Scholarship)
Omega Rho (Operations Research Honor Society)

Institute of Industrial Engineers (IIE), senior member
Institute for Operations Research and Management Science (INFORMS)
Production and Operations Management (POM)

REFEREED JOURNAL ARTICLES IN PRINT OR ACCEPTED FOR PUBLICATION
(names listed in order of authorship and * indicates a student co-author)

Transportation and Service

1. "Joint Optimal Train Regulation and Passenger Flow Control Strategy for High-Frequency Metro Lines," to appear *Transportation Research, Part B: Methodological,* (S. Li, **M. M. Dessouky**, L. Yang, and Z. Gao)

2. "Models and Algorithms for Dynamic Headway Control for Rail Operations," *Computers & Industrial Engineering*, 103, 271-281, 2017 (L. Fu*, and **M. M. Dessouky**)

3. "Ambiguity in Risk Preferences in Robust Stochastic Optimization," *European Journal of Operational Research*, 254, 214-225, 2016 (W. B. Haskell, L. Fu*, and **M. M. Dessouky**)

4. "The Regional Cooperation-based Warehouse Location Problem for Relief Supplies," *Computers & Industrial Engineering*, 102, 259-267, 2016 (Y. Chen*, Q. Zhao, L. Wang, and **M. M. Dessouky**)

5. "Pickup and Delivery Problem for Ridesharing Considering Congestion," *Transportation Letters: the International Journal of Transportation Research*, 8, 259-269, 2016 (X. Wang*, **M. M. Dessouky**, and F. Ordonez)

6. "Modeling Strategies for Effectively Routing Freight Trains through Complex Networks," *Transportation Research, Part C: Emerging Technologies*, 70, 197-213, 2016 (P. Murali*, **M. M. Dessouky**, and F. Ordonez)

7. "Multimodal Dynamic Load Balancing," *IEEE Transactions on Intelligent Transportation Systems*, 17, 356-366, 2016 (A. Abadi*, P. Ioannou, and **M. M. Dessouky**)

8. "A New Approach for Routing Courier Delivery Services with Urgent Demand," *INFOR: Information Systems and Operational Research*, 53, 26-39, 2015 (C. Wang*, F. Ordonez, and **M. M. Dessouky**)

9. "Complementarity Models for Traffic Equilibrium with Ridesharing," *Transportation Research, Part B: Methodological,* 81, 161-182, 2015 (H. Xu*, J.-S. Pang, and F. Ordonez, and **M. M. Dessouky**)

10. "A Traffic Assignment Model for a Ridesharing Transportation Market," *Journal of Advanced Transportation*, 49, 793-816, 2015 (H. Xu*, F. Ordonez, and **M. M. Dessouky**)

11. "Online Cost-Sharing Mechanism Design for Demand-Responsive Transportation Systems," *IEEE Transactions on Intelligent Transportation Systems*, 16, 692-707, 2015 (M. Furuhata,

K. Daniel*, S. Koenig, F. Ordonez, **M. M. Dessouky**, M. Brunet*, L. Cohen*, and X. Wang*)

12. "Optimizing Efficiency and Operations at a Large California Safety-Net Endoscopy Center: A Modeling and Simulation," *Gastroenterology Endoscopy,*80, 762-773, 2014 (L. Day, D. Belson, **M. M. Dessouky**, C. Hawkins*, and M. Hogan*)

13. "Issuing for Perishable Inventory Management Problem with A Minimum Inventory Volume Constraint," *Computers and Industrial Engineering*, 76, 280-29, 2014 (Y-M Lee*, S. Mu*, Z. Shen*, and **M. M. Dessouky**)

14. "Consolidation Strategies for the Delivery of Perishable Products," *Transportation Research Part E: Logistics and Transportation Review*, 69, 108-121, 2014 (C. Nguyen*, **M. M. Dessouky**, and A. Toriello)

15. Ridesharing: the State-of-the-art and Future Directions," *Transportation Part B: Methodological*, 57, 28-46, 2013 (M. Furuhata, **M. M. Dessouky**, F. Ordonez, M. Brunet*, X. Wang*, and S. Koenig)

16. *"Efficient Dispatching Rules on Double Tracks with Heterogeneous Train Traffic," Transportation Research, Part B: Methodological,* 51, 45-64, 2013 (S. Mu* and **M. M. Dessouky**)

17. "Optimization of Service Value," *Computers & Industrial Engineering*, 64, 621-630, 2013 (G. Park*, K. Park, and **M. M. Dessouky**)

18. "Evaluation of Transportation Practices in the California Cut Flower Industry," *Interfaces*, 43, 182-193, 2013 (C. Nguyen*, A. Toriello, **M. M. Dessouky**, and J. E. Moore)

19. "Facility Location under Demand Uncertainty: Response to a Large-scale Bioterror Attack," in Special Issue on Disaster Planning and Logistics in *Socio-Economic Planning Sciences Economics*, 46, 78-87, 2012 (P. Murali*, F. Ordonez, and **M. M. Dessouky**)

20. "A Stochastic Mixed-integer Programming Approach to the Energy-Technology Management Problem," Special Issue on Energy Management and Economics in *Computers & Industrial Engineering*, 63, 594-606, 2012 (S. Stoyan and **M. M. Dessouky**)

21. "Perishable Inventory Management System with a Minimum Volume Constraint," *Journal of Operational Research Society,* 62, 2063-2082, 2011 (Z. Shen*, **M. M. Dessouky**, and F. Ordonez)

22. "Scheduling Freight Trains Traveling on Complex Networks," *Transportation Research, Part B: Methodological*, 45, 1103-1123, 2011 (S. Mu* and **M. M. Dessouky**)

23. "The Multi-shift Vehicle Routing Problem with Overtime," *Computers & Operations Research*, 37, 1987–1998, 2010 (Y. Ren, **M. M. Dessouky**, F. Ordonez)

24. "A Delay Estimation Technique for Single and Double-track Railroads," *Transportation Research, Part E: Logistics and Transportation Review*, 46, 483-495, 2010 (P. Murali*, **M. M. Dessouky**, F. Ordonez, and K. Palmer)

25. "A Genetic Algorithm Approach for Solving the Daily Photograph Selection Problem of the SPOT5 Satellite," *Computers & Industrial Engineering*, 58, 509-520, 2010 (M. Mansour* and **M. M. Dessouky**)

26. "A Model and Algorithm for the Courier Delivery Problem with Uncertainty," *Transportation Science*, 44, 193-205, 2010 (I. Sungur*, F. Ordonez, **M. M. Dessouky**, Y. Ren*, and H. Zhong)

27. "A Two-Stage Vehicle Routing Model for Large-scale Bioterrorism Emergencies," *Networks*, 54, 255-269, 2009 (Z. Shen*, **M. M. Dessouky,** and F. Ordonez)

28. "The Stochastic Vehicle Routing Problem for Minimum Unmet Demand," <u>Optimization and Logistics Challenges in the Enterprise</u>, *Springer Series on Optimization and its Applications,* 2009 (Z. Shen*, F. Ordóñez, and **M. M. Dessouky**)

29. "Heuristic Approach for the Integrated Inventory-distribution Problem," *Computers & Industrial Engineering*, 56, 1519-1534, 2009 (T. Abdelmaguid*, **M. M. Dessouky**, and F. Ordonez)

30. "A Mixed Integer Programming Approach for Allocating Operating Room Capacity," *Journal of the Operational Research Society*, 60, 663-673, 2009 (B. Zhang*, P. Murali, **M. M. Dessouky**, and D. Belson)

31. "A Sustainable Reverse Logistics for Distribution of Industrial Waste/By-Products: A Joint Optimization of Operation and Environmental Costs," *Supply Chain Forum, an International Journal*, 9, 1, 2008. (H. Pourmohammadi*, M. Rahimi, and **M. M. Dessouky**)

32. "Factors Influencing Productivity and Operating Cost of Demand Responsive Transit," *Transportation Research Part A: Policy and Practice*, 42, 503-523, 2008. (K. Palmer, **M. M. Desssouky**, and Z. Zhou*)

33. "A Simulation Study of Demand Responsive Transit System Design," *Transportation Research Part A: Policy and Practice*, 42, 718-737, 2008. (L. Quadrifoglio*, **M. M. Dessouky**, and F. Ordóñez)

34. "A Robust Optimization Approach for the Capacitated Vehicle Routing Problem with Demand Uncertainty," *IIE Transactions*, 40, 509–523, 2008. (I. Sungur*, F. Ordóñez, and **M. M. Dessouky**)

35. "Real-time Arrival Time Estimation at the Nodes of Dynamic Stochastic Networks," *IEEE Transactions on Intelligent Transportation Systems*, 9, 97-110, 2008 (H. Jula*, **M. M. Dessouky**, and P. Ioannou)

36. "Optimal Service Capacity for a Single-Bus Mobility Allowance Shuttle Transit (MAST) System", *Transportation Research, Part B: Methodological*, 42, 135-146, 2008. (J. Zhao* and **M. M. Dessouky**)

37. "Mobility Allowance Shuttle Transit (MAST) Services: MIP Formulation and Strengthening with Logic Constraints," *European Journal of Operational Research*, 185, 481-494, 2008. (L. Quadrifoglio*, **M. M. Dessouky**, and F. Ordóñez)

38. "A Prior Performance Measures for Arc-based Formulations of the Vehicle Routing Problem," *Transportation Research Record*, 2032, 53-62, 2007. (F. Ordóñez, I. Sungur*, and **M. M. Dessouky**)

39. "Sensitivity Analyses over the Service Area for Mobility Allowance Shuttle Transit (MAST) Services," <u>Computer-Aided Systems in Public Transport</u>, *Springer Series: Lecture Notes in Economics and Mathematical Systems*, 2007 (L. Quadrifoglio* and **M. M. Dessouky**)

40. "Territory Planning and Vehicle Dispatching with Driver Learning," *Transportation Science*, 41, 74-89, 2007. (H. Zhong*, R. W. Hall, and **M. M. Dessouky**)

41. "Solution Approaches for Facility Location of Medical Supplies for Large-Scale Emergencies," *Computers & Industrial Engineering,* 52, 257-276, 2007. (H. Jia*, F. Ordóñez, and **M. M. Dessouky**)

42. "An Insertion Heuristic for Scheduling Mobility Allowance Shuttle Transit (MAST) Services," *Journal of Scheduling,* 10, 25-40, 2007 (L. Quadrifoglio* and **M. M. Dessouky**)

43. "A Modeling Framework for Facility Location of Medical Services for Large-Scale Emergencies", Special Issue of *IIE Transactions* on Homeland Security, 39, 41-55, 2007 (H. Jia*, F. Ordóñez , and **M. M. Dessouky**)

44. "Optimal Slack Time for Schedule-Based Transit Operations," *Transportation Science*, 40, 529-539, 2006 (J. Zhao*, **M. M. Dessouky**, and S. Bukkapatnam)

45. "Genetic Algorithm Approach to the Integrated Inventory-distribution Problem," *International Journal of Production,* 44, 4445-4464, 2006 (T. Abdemaguid*, and **M. M. Dessouky**)

46. "A New Insertion-based Construction Heuristic for Solving the Pickup and Delivery Problem with Hard Time Windows," *European Journal of Operational Research,* 175, 672-687, 2006 (Q. Lu* and **M. M. Dessouky**)

47. "Performance and Design of Mobility Allowance Shuttle Transit (MAST) Services: Bounds on the Maximum Longitudinal," *Transportation Science*, 40, 351-363, 2006 (L. Quadrifoglio*, R. W. Hall, and **M. M. Dessouky**)

48. "A Model for the Fleet Sizing of Demand Responsive Transportation Services with Time Windows," *Transportation Research, Part B: Methodological*, 40, 651-666, 2006 (M. Diana*, **M. M. Dessouky**, and N. Xia*)

49. "Truck Route Planning in Non-Stationary Stochastic Networks with Time Windows at Customer Locations," *IEEE Transactions on Intelligent Transportation Systems*, 37, 51-63, 2006. (H. Jula*, **M. M. Dessouky**, and P. Ioannou)

50. "An Exact Solution Procedure for Determining the Optimal Dispatching Times for Complex Rail Networks," *IIE Transactions,* 38, 141-152, 2006 (**M. M. Dessouky**, Q. Lu*, J. Zhao*, and R. Leachman)

51. "Structural Optimization with Tabu Search," *ASCE Journal of Structural Engineering*, 132, 1858-1868, 2006 (M. Kargahi*, J. C. Anderson, and **M. M. Dessouky**)

52. "Waiting Strategies for Dynamic Vehicle Control," *Transportation Science*, 39, 298-312, 2005 (J. Branke, M. Middendorf, G. Noeth* and **M. M. Dessouky**)

53. "Container Movement by Trucks in Metropolitan Networks: Modeling and Optimization," *Transportation Research, Part E: Logistics and Transportation Review*, 41, 235-259, 2005 (H. Jula*, **M. M. Dessouky**, P. Ioannou, and A. Chassiakos)

54. "An Exact Algorithm for the Multiple Vehicle Pickup and Delivery Problem," *Transportation Science,* 38, 503-514, 2004 (Q. Lu* and **M. M. Dessouky**)

55. "Network Design for a Grid Hybrid Transit Service," *Transportation Research, Part A: Policy and Practice*, 38, 511-530, 2004. (M. Aldaihani*, L. Quadrifoglio*, **M. M. Dessouky**, and R. Hall)

56. "Impact of Management Practices and Advanced Technology on Demand Responsive Transit Systems," *Transportation Research, Part A: Policy and Practice*, 38; 495-509, 2004. (K. Palmer**, M. M. Dessouky**, and T. Abdelmaguid*)

57. "Modeling of Train Movements through Complex Networks," *ACM Transactions on Modeling and Computer Simulation*, 14; 48-75, 2004 (Q. Lu*, **M. M. Dessouky**, and R. C. Leachman)

58. "A New Regret Insertion Heuristic for Solving Large-scale Dial-a-ride Problems with Time Windows," *Transportation Research, Part B: Methodological,* 38; 539-557, 2004 (M. Diana* and **M. M. Dessouky**)

59. "Minimizing the Cost of Availability of Coverage from a Constellation of Satellites: Evaluation of Optimization Methods," *Systems Engineering*, 7; 113-122, 2004 (C. Kelley* and **M. M. Dessouky**)

60. "Jointly Optimizing Cost, Service, and Environmental Performance in Demand-Responsive Transit Scheduling," *Transportation Research Part D: Transport and Environment*, 8; 433-465, 2003 (**M. M. Dessouky**, M Rahimi, and M. Weidner*)

61. "Distributed Architecture for Real-Time Coordination of Bus Holding in Transit Networks," *IEEE Transactions on Intelligent Transportation Systems*, 4; 43-51, 2003 (J. Zhao*, S. Bukkapatnam, and **M. M. Dessouky)**

62. "Hybrid Scheduling Methods for Paratransit Operations," *Computers & Industrial Engineering*, 45; 75-96, 2003 (M. Aldaihani* and **M. M. Dessouky**)

63. "Real-Time Control of Buses for Schedule Coordination at a Terminal," *Transportation Research, Part A: Policy and Practice*, 37; 145-164, 2003. (**M. M. Dessouky**, R. Hall, L. Zhang*, and A. Singh*)

64. "A Hierarchical Task Model for Dispatching in Computer-Assisted Demand-Responsive Paratransit Operation," *ITS Journal*, 6; 199-223, 2001. (M. Rahimi and **M. M. Dessouky)**

65. "Optimal Holding Times at Transfer Stations," *Computers & Industrial Engineering*, 40; 379-397, 2001. (R. Hall, **M. M. Dessouky**, and Q. Lu*)

66. "Bus Dispatching at Timed Transfer Transit Stations Using Bus Tracking Technology," *Transportation Research, Part C: Emerging Technologies,* 7; 187-208, 1999. (**M. M. Dessouky**, R. Hall, A. Nowroozi*, and K. Mourikas*)

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"Routing of Multimodal Freight Transportation Using a Co-simulation Optimization Approach," 2017 Transportation Research Board, Washington D. C. (wY. Zhao, and P. Ioannou)

"A Lagrangian-based Approach for Consolidating Freight of Perishable Products," 2016 National Meeting of INFORMS, Nashville, TN (w/C. Nguyen and A. Toriello)

"A Vehicle Routing Problem for CNG Trucks with Fueling Stations," 2016 National Meeting of INFORMS, Nashville, TN (w/Y. Shao)

"Integration of Passenger and Freight Rail Scheduling," 2016 National Meeting of INFORMS, Nashville, TN (w/L. Liu)

"Cost-Sharing Mechanism Design for Supply Chain Consolidation," 2016 National Meeting of INFORMS, Nashville, TN (w/W. Zhang, N. Uhan, and A. Toriello)

"An Online Cost Allocation Model for Horizontal Supply Chains," 2016 National Meeting of INFORMS, Nashville, TN (w/H. Zou and J. Carlsson)

"Congestion Reduction through Efficient Empty Container Movement," 2016 National Meeting of INFORMS, Nashville, TN (w/S. Carvajal)

"Models and Algorithms for Dynamic Headway Control for Rail Operations," World Conference on Transport Research, Shanghai, China, 2016 (L. Fu, and M. M. Dessouky)

"Cost Sharing Mechanism Design for Supply Chain Consolidation and Cooperation in the Agricultural Industry." TSL Workshop. Atlanta, GA, 2016 (W. Zhang, N. Uhan, and A. Toriello)

"Inventory Routing and Freight Consolidation for Perishable Goods," 2016 TRISTAN IX, Aruba, 2016 (w/W. Hu and A. Toriello)

"Train Scheduling and Routing Under Dynamic Headway Control," International Frontier Workshop of Urban Rail Traffic 2016, Beijing, China, 2016

"The Train Dispatching Problem under Exact Travel Time Estimation for a Double Track Rail System, National Urban Freight Conference 2015, Long Beach, CA 2015 (w/L. Fu)

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"Solution Approaches for Facility Location of Medical Supplies for Large-Scale Emergencies," 2006 National Meeting of INFORMS, Pittsburgh, PA, 2006 (w/H. Jia and F. Ordonez)

"An Analysis of Network Structures for the Robust Vehicle Routing Problem," 2006 National Meeting of INFORMS, Pittsburgh, PA, 2006 (w/I. Sungur and F. Ordonez)

"Disbursement of Medical Supplies for Biological Emergencies," 2006 National Meeting of INFORMS, Pittsburgh, PA, 2006 (w/H. Jia and F. Ordonez)

"Stochastic Vehicle Routing to Minimize Unmet Demand," 2006 National Meeting of INFORMS, Pittsburgh, PA, 2006 (w/Z. Shen and F. Ordonez)

"Efficient Routing under Uncertainty," DIMACS and ExxonMobil Workshop on Computational Optimization and Logistics Challenges in the Enterprise, April 19-20, EMRE, Annandale NJ, 2006. (w/F. Ordonez, Z. Shen, and I. Sungur)

"A Methodology for Allocating Operating Room Capacity," 2006 INFORMS Optimization Society Conference: Optimization in Healthcare, San Antonio, TX, 2006. (w/B. Zhang, P. Murali, and D. Belson)

"Factors that Impact Solution Run-times of Arc-based Formulations of the Vehicle Routing Problem," 2005 National Meeting of INFORMS, San Francisco, CA, 2005 (w/I. Sungur and F. Ordonez)

"Performance and Design of Mobility Allowance Shuttle Transit (MAST) services: Bounds on Velocity," 2005 National Meeting of INFORMS, San Francisco, CA, 2005 (w/L. Quadrifoglio)

"Facility Location Problems for Medical Services of Large-scale Emergencies," 2005 National Meeting of INFORMS, San Francisco, CA, 2005 (w/H. Jia and F. Ordonez)

"Framework for Facility Location of Medical Services for Large-scale Emergencies," 2005 IFORS Conference, Honolulu, Hawaii, 2005. (w/F. Ordonez and H. Jia)

"Viability of Mobility Allowance Shuttle Transit (MAST) Services," 2005 Industrial Engineering Research Conference, Atlanta, CA, 2005 (w/L. Quadrifoglio)

"Mobility Allowance Shuttle Transit (MAST) Services: Description, Formulation, Heuristic, Simulation," 2004 National Meeting of INFORMS, Denver, CO, 2004. (w/L. Quadrifoglio)

"Train Dispatching System with Deadlock Avoidance", 2004 National Meeting of INFORMS, Denver, CO, 2004. (w/W. Suteewong)

"Mobility Allowance Shuttle Transit (MAST) Services: Formulation and Simulation Comparison with Conventional Fixed Route Bus Services," IASTED International Conference on Modeling, Simulation and Optimization, Kauai, Hawaii, 2004 (w/L. Quadrifoglio)

Insertion Heuristic for Scheduling Mobility Allowance Shuttle Transit (MAST) Services: Sensitivity to Service Area," 9th International Conference on Computer-Aided Scheduling of Public Transport (CASPT), San Diego, CA, 2004 (w/L. Quadrifoglio)

"Green Logistics for Regional Industrial Waste Material and By-Products", Conference Proceedings Industrial Engineering Research Conference, Houston, Texas, 2004 (w/H. Pourmohammadi, M. Rahimi, D. Rigby, and R. O. Vos)

"A Heuristic Approach for the Inventory Routing Problem with Backorders," 2003 National Meeting of INFORMS, November 2003 (w/ F. Ordonez and T. Abdelmaguid)

"Regional Industrial Waste Materials and By-Products Exchange Network Optimization," 2003 National Meeting of INFORMS, November 2003 (w/ H. Pourmohammadi and M. Rahimi)

"Greening of Industrial Materials Networks in Los Angeles County: Reverse Logistics Model Development," Industrial Engineering Research Conference, Portland, Oregon, 2003. (w/M. Rahimi, B. Yenice-Ay, H. Pourmohammadi, and R. Vos)

"Waiting as New Approach for Real-time Vehicle Dispatching," 2002 National Meeting of INFORMS, November 2002. (w/ G. Noeth)

"Using Simulation Modeling to Assess Rail Track Infrastructure in Densely Trafficked Metropolitan Areas," Winter Simulation Conference, December, 2002. (w/R. C. Leachman, and Q. Lu)

"Benchmarking Best Practices of DRT Systems," 2002 Path Conference, October 2002. (w/K. Palmer and T. Abdelmaguid)

"The Virtual Factory Teaching System (VFTS): Project Review and Results," Ed-Media 2002: World Conference on Educational Multimedia, Hypermedia & Telecommunications, Denver, CO, June 2002. (w/E. J. Kazlauskas, E. F. Boyd III)

"VFTS: Development and Evaluation," National TechEd (Technology in Education) Conference, Long Beach, CA, February 2002. (w/E. J. Kazlauskas, E. Shaw, and J. Rickel)

"Hybrid Scheduling Methods for Demand Responsive Operations," Industrial Engineering Research Conference, Institute of Industrial Engineers, May 2002. (w/M. Aldaihani)

"Dispatching Policies for Vehicle Routing under Different Systems," 2001 National Meeting of INFORMS, November 2001. (w/ G. Noeth)

"Exact Algorithms for the Multiple-Vehicle Pickup and Delivery Problem," 2001 National Meeting of INFORMS, November 2001. (w/Q. Lu)

"Hybrid Routing of Paratransit Operations," 2001 National Meeting of INFORMS, November 2001. (w/M. Aldaihani)

"Efficient Demand Responsive Transit Systems," 2001 Path Conference, October 2001. (w/K. Palmer and T. Abdelmaguid)

"Distributed Holding Control of Bus Transit Operations," The 4th International IEEE Conference on Intelligent Transportation Systems, August, 2001. (w/J. Zhao, and S. Bukkapatnam

"Hybrid Scheduling for Paratransit Operations," Industrial Engineering Research Conference 2001, May 2001. (w/M. Aldaihani).

"Optimal Dispatching Strategies for Demand Responsive Systems," 2000 National Meeting of INFORMS, November 2000. (w/G. Noeth).

"Hybrid Paratransit Delivery Methods," 2000 National Meeting of INFORMS, November 2000. (w./M. Aldaihani).

"Evaluating the Impact of ITS on Personalized Public Transit," 2000 PATH Conference, October 2000. (w/M. Aldaihani)

"Hybrid Automata Formalism for Real-time Scheduling and Control," Industrial Engineering Research Conference 2000, May 2000. (w/ S. Bukkapatnam)

"Batch Chemical Scheduling with Earliness and Tardiness Penalties," Industrial Engineering Research Conference 2000, May 2000. (w/ S. Verma)

"A Methodology for Human-computer Systems Analysis of Dispatching Tasks in Paratransit Operations," Los Angeles Chapter's *Human Factors and Ergonomics Society Annual Symposium*, Nov. 1999. (w/M. Rahimi and A, Boadi, A. (1999).

"Real-time Scheduling Rules for Demand Responsive Transit Systems," 1999 Fall National Meeting of INFORMS, October 1999. (w/G. Noeth and R. Hall)

"Efficient Transit Services Using ITS," 1999 PATH Conference, October 1999. (w/R. Hall)

"An Exact Model Formulation for the Loop Material Flow Pattern Problem," 1998 ASME Conference, November 1998. (w/ A. Asef-Vaziri and C. Sriskandarajh)

"Scheduling Rules for Demand Responsive Transit Systems," IEEE Systems, Man and Cybernatics 1998 Conference, October 1998. (w/S. Adam).

"Simultaneous Batching and Scheduling for JIT Chemical Manufacturing," Eighth Annual Meeting of Production and Operations Management Society, April 1997. (w/ B. Kijowski and S. Verma)

"Flowshop Scheduling with Identical Jobs and Uniform Parallel Machines," 1996 Spring National Meeting of INFORMS, April 1996. (w/ S. Verma and M.I. Dessouky)

"The Weighted Tardiness & Earliness Scheduling Problem with Unit-Time Processing," 1995 Spring Joint National Meeting of the Operations Research Society of America and The Institute of Management Sciences, April 1995. (w/ S. Verma and B. Kijowski)

"An Object-Oriented Approach to Discrete Event Dynamic Control of Batch Chemical Systems," 1995 Western MultiConference: Object-Oriented Simulation, January 1995. (w/ Y. M. Dessouky and C. A. Roberts)

"A Heuristic to Improve A Job Shop Schedule," 1994 Spring Joint National Meeting of the Operations Research Society of America and The Institute of Management Sciences, May 1994. (w/ W. Tan)

"A Factory Release Policy Based on an Optimization Model," Second Industrial Engineering Research Conference, May 1993. (w/ R. C. Leachman)

"A Factory Scheduling Policy Based on an Optimization Modeling Methodology," 1993 Spring Joint National Meeting of the Operations Research Society of America and The Institute of Management Sciences, May 1993. (w/ R. C. Leachman)

"An Integer Programming Model Accounting for Processing Time," 1992 Fall Joint National Meeting of the Operations Research Society of America and The Institute of Management Sciences, November 1992. (w/ R. C. Leachman)

"An Integer Programming Model for Determining a Feasible Starts Schedule," Seventh Annual SRC/DARPA CIM/IC Workshop, Semiconductor Research Corporation, August 1992. (w/ R. C. Leachman)

"Analytical Factors Concerning the Use of Micro-mini Storage Devices as Material Management Systems," 1987 Winter Simulation Conference, Institute of Electrical and Electronics Engineers, December 1987. (w/ P. C. Caruso)

"Simulation of an Injector Plunger Line," 1985 Winter Simulation Conference, Institute of Electrical and Electronics Engineers, December 1985. (w/ F. H. Grant and D. Gauthier).

SERVICE

Professional

<u>Journals</u>

Department Editor of Manufacturing Logistics, IIE Transactions, 2011 – present.

Associate Editor of Transit/Railway Planning and Operations, *Transportation Research Part B: Methodological*, 2014-present.

Editorial Board Member, *Transportation Research Part B: Methodological*, 2011 – 2014.

Editorial Board Member, *Transportation Research, Part E: Logistics and Transportation Review,* 2013 - present.

Area Editor of Planning and Scheduling of *Computers and Industrial Engineering*, 2000 – present.

Associate Editor, *IEEE Transactions on Intelligent Transportation System*s, 2013 – 2015.

Area Editor of Transportation Simulation and Methodology, *ACM Transactions on Modeling and Computer Simulation*, 2004-2013.

Guest Co-editor, Special Issue on National Urban Freight Conference, *Transportation Research, Part E: Logistics and Transportation Review,* 2009.

Guest Co-editor, Special Issue on National Urban Freight Conference, *Transportation Research, Part E: Logistics and Transportation Review,* 2006.

Guest Editor for Special Issue of *Computers and Industrial Engineering* on Mathematical Models and Their Applications For Production Planning and Scheduling, 1999 – 2000.

Editorial Board Member, *Journal of Intelligent Systems: Theory and Applications (JISTA)*, 2013 – present.

Editorial Board Member, *Journal of Service Science Research*, 2008-present.

Editorial Board Member, *The Open Transportation Journal,* 2007-present.

Editorial Board Member, *International Journal of Advanced Operations Management*, 2008-present.

Editorial Board Member, *International Journal of Business Performance and Supply Chain Modelling*, 2008- present.

Steering Committee Member, *Journal of Automatic Control and Systems Engineering*, 2004-present.

Referee

Reviewed books and papers in the following journals: *Management Sciences*, *IIE Transactions, Operations Research, IEEE Transactions on Robotics and Automation, IEEE Transactions on Semiconductor Manufacturing, Simulation, Journal of Optimization Theory and Applications, Naval Research Logistics, Discrete Applied Mathematics, European Journal of Operational Research, Acta Informatica, Omega, International Journal of Production Economics, Industrial & Engineering Chemistry Research, International Journal of Production Research, Computers and Industrial Engineering, IEEE Transactions on Intelligent Transportation Systems, Annals of Operations Research, Energy Studies Review, INFORMS Transactions on Education,*

Production and Operations Management, ITS Journal, Operation Research Letters, International Transactions in Operational Research, Computers & Operations Research, ASCE Journal of Transportation Engineering, Journal of Automatic Control and Systems Engineering, IEEE Intelligent Systems, International Journal of Modelling and Simulation, Journal of Zhejiang University Science, Transportation Science, INFOR, Transportation Research – Part E, Journal of Scheduling, International Journal of Inventory Research, Transportation Research – Part B, Computers and Mathematics with Applications, World Congress on Transportation Research, Journal of King Saud University, The Open Transportation Journal, Mathematical Programming, Transportation Research Record, Journal of Heuristics, Journal of Combinatorial Optimization, Journal of Public Transport, Asia Pacific Journal of Operational Research, Networks and Spatial Economics, Transportation Research – Part C, IEEE Transactions on Industrial Informatics, Egyptian International Journal of Engineering Science & Technology, OR Spectrum, Transportation, Transportmetric A: Transport Science, Research in Transportation Business & Management, Public Transport, European Journal on Transportation & Logistics, Applied Mathematical Modelling,

Conferences

Program Committee, 2017 Transportation Science & Logistics Conference, Chicago, IL, 2017
Program Committee, 2016 Transportation Science & Logistics Workshop, Atlanta, GA, 2016

International Program Committee, 2014 International IEEE Conference on Intelligent Transportation Systems (IEEE ITSC 2014), Qingdao, China, 2014.

Program Committee, 2014 International Conference on Control, Decision, and Information Technologies, Metz, France, 2014.

Program Committee, Workshop on Technologies for the Organisation and Adaptation of Systems for Travel, Self-adaptive and self-organizing Systems, SAS) 2012, France, 2012.

International Program Committee, SIMULATECH 2011 (1st International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Netherlands, 2011.

Program Committee, IEEE International Conference on Automation Science and Engineering, Toronto, Canada, 2010.

Organizing Committee Member, 2007 National Urban Freight Conference, 2009.

International Program Committee, KPA & KINFORMS 2009 International Conference, Seoul, Korea, 2009.

International Technical Advisory Board, 39th Computers & Industrial Engineering Conference, Troyes, France, 2009.

Associate Editor, 5th Annual IEEE Conference on Automation Science and Engineering, Bangalore, India, 2009.

Organizing Committee Member, 2007 National Urban Freight Conference, 2007.

International Program Committee, IFAC Symposium on Control of Transportation Systems, 2008.

Member, Scientific Advisory Board, 2007 International Conference on Agile Manufacturing, 2006-2007.

Review Board Member, Multi-Echelon / Public Applications of Supply Chain 2006 Conference, 2006.

Chair and Member, Executive Committee, Industrial Engineering Research Conference, 2003-2005.

Program Chair, 2003 Industrial Engineering Research Conference, 2002-2003.

Member, Organizing Committee, First IIE Doctoral Colloquium, for 2002 IERC.

Coordinator of Supply Chain Track of IIE Manufacturing Division, 2000- 2002.

Conference Program Chair, 1998 Object-Oriented Simulation Conference, San Diego, CA, January 1998.

Session Chair, 1998 Object-Oriented Simulation Conference, San Diego, CA, January 1998.

Program Coordinator, INFORMS Educational Workshop to Educate Math/Science Teachers on Careers in IE/OR, 1995 Spring Joint National Meeting of INFORMS, May 1995.

Session Chair, Optimization in Manufacturing, 1993 Fall Joint National Meeting of the Operations Research Society of America and The Institute of Management Sciences, Society of Operations Research, May 1993.

Public

Committee Member, Arab Healthy Water Association, 2007 – present

Member, Executive Committee, Research and Technology Advisory Panel, State of California, 2006-present.

TSS Wireless, Technical Advisory Board, 2001 – present.

Member, Presidential Commission of IIE, 2002-2003.

Selection Committee, IIE Doctoral Dissertation Award, 2001, 2002.

University of Southern California

<u>University</u>

Member, Executive Committee, METRANS, 2005-present.

Selection Committee, USC Associates Award for Excellence in Teaching, 2001, 2002, 2004, 2005.

Member, Committee for Innovative Teaching, 2004-2005.

Member, Academic Senate Subcommittee on Instruction Learning Technology, 1999 – 2002.

<u>School</u>

Member, Viterbi PhD Council, 2012-present.

Member, Viterbi Research Committee, 2010-2012.

Member, Executive Committee, Center for Advanced Transportation Technology, 2003-present.

Interview Committee, Trustee and Presidential Scholarship, 1999 – present.

Chair, Executive Committee, School APT Committee, 2007-2008.

Member, Executive Committee, School APT Committee, 2006-2007.

Member, School Committee on Faculty Recruitment and Retention, 2006-2008.

Chair, Selection Committee for School of Engineering Teaching Award, 1999, 2005

Member, MS Program Review Committee, 2002-2003.

Faculty Mentor, School of Engineering, 1998-2000.

Undergraduate Recruiting Committee, School of Engineering at USC, 1993-1996.

Undergraduate Manufacturing Committee, School of Engineering at USC, Develop an Option in Manufacturing Engineering, 1993-2000.

Graduate Recruiting Committee, School of Engineering at USC, 1994-1996.

Curriculum Review Task Force Working Group, School of Engineering at USC, 1994-1996.

<u>Department</u>

Member, Search Committee, 2012-present.

Member, Graduate Committee, 2012-present.

Chair, Department Merit Review Committee, 2011.

Program Coordinator, Master of Operations Research Program, Department of Industrial and Systems Engineering, University of Southern California, 1993-present.

Faculty Advisor, USC Chapter of Omega Rho, 1993-2011.

Chair, Faculty Search Committee, 2003-2004, 2006-2009.

Member, Department Merit Review Committee, 2005, 2013.

Member, Department Faculty Promotion Committee, 2005-2009, 2013.

Member, Department Space Committee, 2003.

Chair Graduate Committee, Dept. of ISE at USC, 1998-2000.

Chair Undergraduate Committee, Dept. of ISE at USC, 1993-1995.

Arranged Field trips for students from Leuzinger High School to visit the University of Southern California, Fall 1995.

DOCTORAL STUDENTS (Completed)

Xiaoqing Wang, "Routing for Ridesharing," Chair, May 2016

Lunce Fu, "Train Routing and Scheduling under Dynamic Headway Control," Chair, May 2016 (Software Engineer, Google Inc.)

Christine Nguyen, "Supply Chain Cooperation and Consolidation in the Agriculture Industry," Co-Chair, August 2014 (Assistant Professor, Northern Illinois University)

Huayu Xu, "The Effect of Ridesharing in the Traffic Assignment Problem," Co-Chair, August 2014 (Software Engineer, Google Inc.)

Chen Wang, "A New Approach for Routing Courier Delivery Services with Urgent Demand," Chair, December 2012 (Supply Chain Operations Research Analyst, Nestle America)

Shi Mu, "Minimizing Congestion on Railway Networks," Chair, August 2011. (Consultant, Integrated Decision Systems Consultancy)

Yingtao Ren, "Vehicle Routing and Resource Allocation for Health Care under Uncertainty," Co-Chair, May 2011. (Consultant, Manhattan Associates)

Pavan Murali, "Strategies for Effective Rail Track Capacity Usage," Co-Chair, August 2010. (Research Staff Member, IBM Watson Research Center)

Nasser B. AlRifai, "Optimizing a Lean Logistic System and the Identification of its Breakdown Points," Chair, December, 2008. (Kuwait Economic Foundation)

Zhihong Shen, "The Stochastic Vehicle Routing Problem to Minimize Unmet Demand," Co-Chair, August, 2008. (Developer, Microsoft)

Hongzhong Jia, "Models and Solution Approaches for Facility Location Problems of Medical Services for Large-scale Emergencies," Co-Chair, December, 2006. (Sr. Developer, Microsoft)

Worawan Suteewong, "Algorithms for Solving the Train Dispatching Problems for General Networks," Chair, August 2006. (Family Business)

Luca Quadrifoglio, "A Hybrid Fixed and Flexible Transportation Service: Description, Viability, Formulation, Optimization and Heuristic," Chair, August 2005. (Assistant Professor in the Transportation Group at Texas A&M University)

Hamid Pourmohammadi, "Green Logistics for Regional Industrial Waster Materials and By-products," Co-chair, August 2005. (Assistant Professor in Department of Management at California State University – Dominguez Hills)

Tamer Abdelmaguid, "New Algorithmic Approaches to the Integrated Inventory-Distribution Problem," Chair, May 2004. (Assistant Professor in the Department of Production Engineering at Cairo University)

Jiamin Zhao, "Optimization of Transit Scheduling with Random Travel Times," Chair, December 2003. (Staff Researcher at Oracle Corporation)

Quan Lu, "New Algorithmic Approaches for Solving General Pickup and Delivery Problems," Chair, August 2003. (Staff Researcher at Oracle Corporation)

Clifford Kelly, "Minimizing the Cost of Availability of Services from a Constellation of Satellites," Chair, August 2003. (Jr. Fellow at Boeing Corporation)

Majid Aldaihani, "Hybrid Scheduling Methods for General Routing Problems," Chair, May 2002. (Assistant Professor in the Department of Industrial Engineering at Kuwait University)

Ken McGraw, "Batch Chemical Scheduling with Earliness and Tardiness Penalties," Chair, August 1999. (Member of Technical Staff at Jet Propulsion Labs)

Ting-Li Lin, "Effective and Efficient Production Cell Design in a Cellular Manufacturing System," Chair, May 1994. (Associate Professor in the Department of Business Administration at Ming Chuan University)

Jea-Sheng Yao, "Utilizing the Sparsity of Kernel Matrix with Dynamic Factorization for a Dynamically Dimension-Expanding Algorithm when Solving Convex Quadratic Programming Problems," Chair, May 1994. (Associate Professor in the Department of Business Administration at Feng Chia University)

Yundi Qian, "Handling Attacker's Preference in Security Domains: Robust and Learning Approaches," Committee member, May 2016

Tooraj Rajabioun, "Intelligent Transportation Technologies in Urban Environments," Committee member, May 2016

Naemeh Esfahani, "OTC Energy Derivatives Pricing," Committee member, December 2015

Qian An, " Evaluating City Logistics Using Two-Level Location Routing Modeling and SCPM Simulation," Committee member, August 2015

Babak Haji, "Queueing Loss System with Heterogeneous Servers and Discriminating Arrivals," Committee member, May 2015

Afshin Abadi, "Optimum Multimodal Routing Under Normal Condition and Disruptions," Committee member, August 2014

Cenk Karahan, "Two Stochastic Control Problems in Finance," Committee member, August 2011

Yen-Ming Lee, "Bayesian Optimal Stopping Problems with Partial Information," Committee member, December 2010

William Yeoh, "Speeding Up Distributed Constraint Optimization Search Algorithms," Committee member, August 2010

Shishir Bharathi, "Efficient Data and Information Delivery for Workflow Execution in Grids," Committee member, May 2009

Gurmeet Singh, "An End-to-End Framework for Provisioning Based Resource and Application Management in Grids, Committee member, May 2008.

Jie Liu, "User-centered Computing and Design in ESP: a Driving Interface for Musical Expression Synthesis," Committee member, December 2007.

Ilgaz Sungur, "The Robust Vehicle Routing Problem," Committee member, August 2007.

Wei Ye, "Models and Algorithms for Energy Efficient Wireless Sensor Networks," Committee member, December 2006.

Sungbin Cho, "A Computable General Equilibrium Model Toward Multi-regional Context from Anas-Kim," Committee member, December 2006.

Zhiqiang Zhou, "Two-Phase IMSE-Optimal Latin Hypercube Design for Computer Experiments," Committee member, August 2006.

Jianlong Zhang, "Practical Adaptive Control: Theory and Applications," Committee member, May 2006.

Boontariga Kasemsontitum, "Vehicle Routing with Stochastic Customers and Demand while Maintaining Driver Familiarity with Service Territories and Time Windows," Committee member, May 2006.

Kalyan Kuppuswamy, "Resource Allocation and Performance Analysis of Multiclass Services in Optical WDM Networks," Committee member, December 2004.

Merrill Weidner, "Green Transit Planner: A Methodology for Jointly Optimizing Cost, Service, and Life-cycle Environmental Performance in Demand-Responsive Transit Scheduling," Committee member, May 2003.

Mohsen Kargahi, "Structural Optimization with Tabu Search," Committee member, August 2002.

Hossein Jula, "Dynamic Optimization of Cargo Movement by Trucks in Metropolitan Areas with Adjacent Ports," Committee member, May 2002.

Hongsheng Zhong, "Vehicle Routing with Stochastic Customers and Demand while Maintaining Driver Familiarity with Service Territories," Committee member, December 2001.

Chin-I Liu, "Design, Modeling, and Optimization of Automated Container Terminals," Committee member, December 2001.

Cenk Caliskan, "Vehicle Routing for Longhaul Operations under Cyclic Constraints," Committee member, August 1999.

Jaber Al-Marri, "Variable Bit Rate Continuous Media Servers," Committee member, August 1998.

Jeff Wiegley, "Sorting Convex Polygonal Parts without Sensors on a Conveyor," Committee member, August 1998.

Wei Tan, "Integration of Process Planning and Scheduling – A Mathematical Programming Approach," Committee member, May 1998.

Kyeonah Yu, "Loading Sensor-Based Fixtures with Compliant Motions," Committee member, December 1995.

Alireza Azmandian, "Integration of Assembly Planning and Scheduling in Electronics Manufacturing Operations," Committee member, August 1995.

Dusan Sormaz, "Knowledge-Based Integrative Process Planning System Using Feature Reasoning and Cost-Based Optimization," Committee member, December 1994.

Wolfgang Bohner, "Exhaustive Search and Efficient Algorithms for Determining One-for-One Equipment Replacement Policies," Committee member, August 1994.

DOCTORAL STUDENTS (In Progress)

Yihuan Shao, "Routing Problems for Fuel Efficient Vehicles," Chair

Liang Liu, "Integration of Passenger and Freight Rail Scheduling," Chair

Wentao Zhang, "Cost-sharing Mechanism Design for Freight Consolidation," Chair