

Curriculum Vitae of Diwakar Gupta

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CONTACT INFORMATION

Information, Risk, and Operations Management Department
McCombs School of Business
University of Texas at Austin
Austin, TX 78712-1532
Phone: 512-471-9433, Facsimile: 512-471-0587
Email: diwakar.gupta@mcombs.utexas.edu

APPOINTMENTS

University of Texas at Austin, McCombs Business School
09/17 – Present INBA-Stuart Centennial Professor, IROM Department

University of Minnesota

07/12 – 08/17 Professor of Industrial & Systems Engineering
09/03 – 06/12 Professor of Mechanical Engineering & ISyE Program
10/08 – 08/17 Affiliate Senior Member, Graduate Faculty, Health Services Research,
Policy, and Administration, School of Public Health
01/06 – 08/17 Faculty Scholar, Center for Transportation Studies
01/05 – 05/09 Director of Graduate Studies, ISyE Program
09/99 – 08/03 Mayhugh Associate Professor of Mechanical Engineering

National Science Foundation (IPA)

09/14 – 09/16 Program Director, Service, Manufacturing and Operations
Research Program

McMaster University, DeGroote School of Business

07/93 – 06/01 Associate Professor of Production and Management Science
07/89 – 06/93 Assistant Professor of Production and Management Science

Technical University of Nova Scotia, Department of Industrial Engineering

04/88 – 06/89 Assistant Professor of Industrial Engineering

VISITING APPOINTMENTS

01/09 – 05/09 Visiting Research Professor, SMU Cox School of Business and
Naval Postgraduate School
01/03 – 04/03 Visiting Associate Professor, University of Michigan Business School
10/02 – 11/02 Visiting Senior Fellow, National University of Singapore Business School
09/95 – 12/95 Visiting Associate Professor, University of Minnesota

EDUCATION

- 1988 Ph. D., Management Sciences, University of Waterloo, Canada
- 1984 M. A. Sc., Industrial Engineering, University of Windsor, Canada
- 1982 B. Tech., Mechanical Engineering, Indian Institute of Technology Delhi, India

AWARDS & HONORS

- [1]. 2015 *Best Paper Award Finalist, College of Healthcare Operations and Management Paper Competition* for the article "Bundled Payments For Healthcare Services: Proposer Selection and Information Sharing."
- [2]. 2015 *Best Paper in the IIE Transactions Focused Issue on Scheduling and Logistics* for the article "Fast-Ship Commitment Contracts in Retail Supply Chains."
- [3]. 2009 *M&SOM Best Paper Award Finalist* for the article "Stochastic Comparisons in Airline Revenue Management."
- [4]. 2005 *IIE Outstanding Publication Award* and *IIE Transactions – Scheduling and Logistics* best paper award for the article "A Sequential Bounding Approach for Optimal Appointment Scheduling."
- [5]. 1999 *IIE Transactions – Design and Manufacturing* best paper award for the article "Workload Allocation in Multi-Product, Multi-Facility Production Systems with Setup Times."
- [6]. 1998 *IIE Transactions – Scheduling and Logistics* best paper award for the article "Scope Versus Focus: Issues of Flexibility, Capacity, And the Number of Production Facilities."
- [7]. 1994-95 *Basu Memorial Award* for Excellence in Teaching in the MBA Program, McMaster University.

EDITORIAL RESPONSIBILITIES

- [1]. Founding Departmental Editor, Health Care Operations Management Department, Naval Research Logistics, 2019-present.
- [2]. Guest Editor, Special Issue of the Naval Research Logistics Journal, 2018-20.
- [3]. Associate Editor, Health Care Operations Department, Management Science, 2018-present.
- [4]. Guest Editor, Special Issue of the Journal of the Operational Research Society on Healthcare Operations Research (Published April 2014; see <http://www.palgrave-journals.com/jors/journal/v65/n4/index.html>).
- [5]. Guest Senior Editor, POM Journal, 2012 – 2014.
- [6]. Guest Associate Editor, M&SOM journal, 2012 – 2013.
- [7]. Departmental Editor, Health Care and Public Policy Department, IIE Transactions focused issue on Operations Engineering (March 2009 – December 2011).
- [8]. Associate Editor, M&SOM special issue on health care operations, 2010-11.

- [9]. Co-Editor-in-Chief, Flexible Services and Manufacturing Journal, formerly International Journal of Flexible Manufacturing Systems, (January 2007 – September 2009).
- [10]. Departmental Editor, Supply Chain Management Department, IIE Transactions focused issue on Scheduling and Logistics (January 2004 – February 2009).
- [11]. Editorial Board Member/Associate Editor: Service Science, (January 2016 - December 31, 2018); Computers & Operations Research (January 2005 – December 2006); Manufacturing & Service Operations Management Journal (January 2003 – December 2005); International Journal of Flexible Manufacturing Systems (September 1996 – December 2006); IIE Transactions focused issue on Scheduling and Logistics (July 01 – December 2003; and August 1996 – January 1997).

RESEARCH SUPPORT

Single- or Lead-PI Grants

- [1]. *Organ Procurement and Information Process Optimization*, Agency For Healthcare Research And Quality, \$100,000, 09/01/2020–08/30/2022.
- [2]. *Role of Information Sharing in Drug Shortages*, McCombs Research Excellence Grant, \$6,240, 4/10/2020 – 4/30/2022.
- [3]. *Models for Understanding the Benefits-Value-Adviser (BVA) Program*, McCombs Research Excellence Grant, \$6,952.50, 11/1/2019 – 4/30/2021.
- [4]. *Algorithms for Assessing Decreased Donor Organ Potential*, McCombs Research Excellence Grant, \$13,708, 11/27/2018 – 4/30/2020.
- [5]. *Trade Finance Contracts for Small-Business Suppliers*, National Science Foundation, \$282,187, 08/01/2014 – 07/31/2020.
- [6]. *Reserve Driver Online Scheduling for Transit Operations*, National Science Foundation, \$276,026, 10/1/2013 – 9/30/2019.
- [7]. *Metro Transit Bus Operator Workforce Optimization*, Total Budget \$75,000 of which \$37,500 comes from the Office of the UMN Vice President for Research and \$37,500 comes from my non-sponsored funds, 8/29/2016 – 8/27/2018.
- [8]. *Weigh-in-Motion Sensor and Controller Operation and Performance Comparison*, Minnesota Department of Transportation, \$80,000, 7/1/2015 – 2/28/2018.
- [9]. *Optimizing Automatic Traffic Recorders Network in Minnesota*, Minnesota Department of Transportation, \$154,724, 5/1/2013 – 5/31/2016.
- [10]. *Statistical Analysis of Fare Compliance*, Metro Transit, \$63,927, 3/1/2013 – 8/31/2014.
- [11]. *Scientific Registry of Transplant Recipients*, Health Resources and Services Administration, member of leadership team among 15 PIs, total 5-year contract amount exceeds \$21 million, 9/21/10 – 9/20/15.

- [12]. *Highway Cost Allocation and Determination of Heavy Freight-Truck Permit Fees*, Minnesota Department of Transportation, \$179,752, 4/1/09 – 9/30/12.
- [13]. *Speed and Efficiency in Government Procurement of Transportation-Related Construction Services*, National Science Foundation & University of Minnesota's Center for Transportation Studies, \$250,000, 08/01/07 – 01/31/13
- [14]. *OR Capacity Management: An Exploratory Data Analysis*, Bascom Eye Institute, University of Miami, \$5,000, 11/15/11 – 7/15/12.
- [15]. *Inpatient Staffing Optimization*, Midwestern Mountain VERC (Task 9.2), Veterans Administration, \$91,152, 1/1/11 – 06/30/12.
- [16]. *Advance Scheduling*, Midwestern Mountain VERC (Task 5.2), Veterans Administration, \$105,995, 10/1/10 – 1/31/12.
- [17]. *Optimal Contract Mechanism Design for Performance Based Contracts*, Local Road Research Board and Center for Transportation Studies, \$50,000, 11/10/09 – 10/31/11
- [18]. *Workforce Planning for Transit Operations*, Center for Transportation Studies, \$10,000, 09/25/10 – 6/30/11
- [19]. *Advance Scheduling*, Midwestern Mountain VERC (Task 5.1), Veterans Administration, \$42,011, 9/1/09 – 07/31/10
- [20]. *Inpatient Staffing Optimization*, Midwestern Mountain VERC (Task 9.1), Veterans Administration, \$42,011, 9/1/09 – 09/30/10
- [21]. *Workforce Planning for Transit Operations*, Center for Urban & Regional Affairs and Center for Transportation Studies, \$50,788, 6/1/09 – 9/1/10 (Co-PI: N. Wilson, MIT)
- [22]. *Using Data to Improve Management of Surgical Suites and Patient Flow*, United Hospital, \$68,100, 10/1/08 – 09/30/10 (Co-PI: S. Potthoff)
- [23]. *Hospital Capacity and Patient Flow Management*, McKesson Info Solutions LLC, \$271,209, 04/01/08 – 08/31/10 (Co-PI: S. Potthoff)
- [24]. *Optimal Manpower Planning and Shift Scheduling for Snow & Ice Removal*, St. Louis County & Local Road Research Board, \$146,787, 09/01/07 – 12/31/10
- [25]. *Statistical Methods for Materials Testing*, Minnesota Department of Transportation & Local Road Research Board, \$94,867, 09/01/07 – 01/31/10
- [26]. *Adaptive Appointment Systems with Patient Preferences*, National Science Foundation, \$91,177, 09/15/06 – 08/31/09
- [27]. *Improving Capacity Planning for Demand Responsive Paratransit Services*, Minnesota Department of Transportation & Metro Mobility, \$55,000, 08/01/05 – 05/30/08
- [28]. *Capacity & Revenue Management for Retail Health Care*, Minute Clinic, \$45,000, 06/12/06 – 12/31/06

- [29]. *Air-Cargo Revenue Management in the Presence of Intermediaries*, National Science Foundation, \$90,000, 10/01/04 – 09/30/06 (Co-PI: W. Cooper)
- [30]. *Next Generation Appointment Systems*, Agency for Healthcare Research and Quality, \$100,000, 09/30/02 – 09/29/05 (Co-PI: S. Potthoff)
- [31]. *Joint Optimization of Resource Allocation and Operational Decisions for Improving Random Yield*, National Science Foundation, \$99,999, 06/15/01 – 05/31/04 (Co-PI: W. Cooper)
- [32]. *Product Design and Inventory Deployment to Improve Delivery Performance in the Steel Industry*, National Science Foundation, \$200,000, 08/01/00 – 07/31/04 (Co-PI: S. Benjaafar)
- [33]. *Strategic Deployment of Inventory at Integrated Steel Mills*, Dofasco, Inc., Canada, \$30,000, 12/01/00 – 08/31/02
- [34]. *Slab Design and Inventory Deployment to Improve Delivery Performance in Steel Industry*, School of Graduate Studies, University of Minnesota, \$20,608, 01/01/00 – 06/30/01
- [35]. *Using Slab Inventory Strategically to Achieve Quick Response*, Dofasco, Inc., Canada, \$23,800, 04/01/99 – 09/30/00
- [36]. *Design of Multi Product Manufacturing Systems*, Natural Sciences and Engineering Research Council of Canada, \$106,260, 04/01/98 – 03/31/02
- [37]. *Principles for Managing Operating Room Resources in Hospitals*, Social Sciences and Humanities Research Council of Canada, \$36,300, 04/01/98 – 03/31/01
- [38]. *Manufacturing Flexibility: Measurement and Evaluation*, Natural Sciences and Engineering Research Council of Canada, \$72,000, 04/01/94 – 03/31/98
- [39]. *Models for Evaluating Flexibility of Manufacturing Systems*, Natural Sciences and Engineering Research Council of Canada, \$48,000, 04/01/91 – 03/31/94
- [40]. *Analytical Models for Understanding Flexibility of Manufacturing Systems*, Natural Sciences and Engineering Research Council of Canada, \$36,000, 04/01/88 – 03/31/91

Grants in a Co-PI Role

- [41]. *OR Capacity Management: Balancing Upstream and Downstream Impact on Patient Flow*, United Hospital, \$32,000, 09/30/2010 – 07/31/11 (PI: S. Potthoff).
- [42]. *Interdisciplinary Research on Procurement Systems*, Graduate School Grants-in-Aid Program, University of Minnesota, \$24,643, 07/01/07 – 01/15/09 (PI: P. Bajari)
- [43]. *Operations Analysis for Community University Health Care Center*, Academic Health Center, University of Minnesota, \$83,329, 01/01/07 – 12/31/07 (PI: S. Potthoff)
- [44]. *Mining Hospital Data to Optimize Patient Flow*, Digital Technology Center, University of Minnesota & United Hospital, \$54,915, 06/01/06 – 12/31/07 (PI: S. Potthoff)
- [45]. *Symposium on Supply Chain Management in Process Industries*, National Science Foundation, \$20,000, 03/15/03 – 08/31/04 (PI: S. Benjaafar)

- [46]. *Developing an Objective, Efficient, and Cost-effective Approach to Managing the Waiting List for Cardiac Catheterization*, Canadian Health Services Research Foundation, Cardiac and Vascular Program, Hamilton Health Sciences Corporation, and Ontario Ministry of Health, \$272,500, 07/01/99 – 08/31/03 (PI: M. Natarajan)

PUBLICATIONS

Refereed-Journal Articles:

Asterisk (*) indicates advisee.

- [1]. Goyal*, S. and Gupta, D., 2020. "The Online Reservation Problem." *Algorithms*, **13**:10, 241.
- [2]. Ozge*, C. E., Gupta, D., and Pruett, T. 2020. "A critical look at the U.S. deceased-donor organ procurement and utilization system," *Naval Research Logistics*, Published online 29 June 2020, <https://doi.org/10.1002/nav.21924>, Accepted May 2020. *This is an invited paper for a special issue of NRL for which I am the guest editor. It was reviewed twice before being accepted.*
- [3]. Martin*, P., Gupta, D., and Natarajan, K. V. 2020. "Vaccine Procurement Contracts for Developing Countries," *Production and Operations Management*, Published online June 2020, Accepted for publication, June 2020.
- [4]. Burtch, G., Gupta, D., and Martin*, P. 2020. "Referral Timing and Fundraising Success in Crowdfunding," *Manufacturing and Service Operations Management*, published online June 3, 2020, accepted October 2019 <https://doi.org/10.1287/msom.2020.0876>.
- [5]. Bandi, C. and Gupta, D. 2020. "Operating-Room Staffing and Online Scheduling," *Manufacturing and Service Operations Management*, **22**:5, 869-1106, C2.
- [6]. Gupta, D. and Chen*, Y. 2020. "Retailer-Direct Financing Contracts Under Consignment," *Manufacturing and Service Operations Management*, **22**:3, 429-643, C2.
- [7]. Gupta, D., and Li*, F. 2016. "Reserve Driver Scheduling." *IIE Transactions*, **48**, 193–204.
- [8]. Chen*, H.W., Gupta, D., Gurnani, H., and Janakiraman G. 2016. "A Stochastic Inventory Model With Fast-Ship Commitments." *Production and Operations Management*, **24**, 684–700.
- [9]. Li*, F., Gupta, D., and Potthoff, S. P. 2016. "Improving Operating Room Schedules." *Health Care Management Science*, **19**, 3, 261–278.
- [10]. Gupta, D. and Mehrotra, M. 2015. "Bundled Payments For Healthcare Services: Proposer Selection and Information Sharing." *Operations Research*, **63**, 4, 772–788.
- [11]. Kim*, S.-P., Gupta, D., Israni, A. K., and Kasiske, B. L. 2015. "Accept/decline decision module for the liver simulated allocation model." *Health Care Management Science*, **18**, pp. 35–57.
- [12]. Gupta, D., Snir E. M., and Chen*, Y. 2015. "Contractors' and Agency Decisions and Policy Implications in A+B Bidding." *Production & Operations Management*, **24**, 159–177.
- [13]. Wang*, W.-Y., and Gupta D. 2014. "Nurse Absenteeism and Staffing Strategies for Hospital Inpatient Units." *Manufacturing & Service Operations Management*, **16**, 439–454.

- [14]. Li*, F., and Gupta, D. 2014. "The Extraboard Operator Scheduling and Work Assignment Problem." *IIE Transactions*, **46**, 1132–1146.
- [15]. Tang, Y., Gurnani, H., and Gupta, D. 2014. "Managing Disruptions in Decentralized Supply Chains with Endogenous Supply Reliability." *Production & Operations Management*, **23**, 1198–1211.
- [16]. Chen*, H.W., Gupta, D., and Gurnani, H. 2013. "Fast-Ship Commitment Contracts in Retail Supply Chains." *IIE Transactions*, **45**, 811–825. (Winner of 2015 Best Paper in the IIE Transactions Focused Issue on Scheduling and Logistics)
- [17]. Wang*, W.-Y., and Gupta, D. 2011. "Adaptive Appointment Systems with Patient Preferences," *Manufacturing & Service Operations Management*, **13**, 373–389.
- [18]. Amaruchkul*, K., Cooper, W. L., and Gupta, D. 2011. "A Note on Air-Cargo Capacity Contracts," *Production & Operations Management*, **20**, 152–162.
- [19]. Gupta, D., Chen*, H.W., Miller, L.A., and Surya* F. 2010. "Improving the Efficiency of Demand-Responsive Paratransit Services," *Transportation Research Part A*, **44**, 201–217.
- [20]. Gupta, D., Gurnani, H., and Chen*, H.W. 2010. "When Do Retailers Benefit From Special Ordering?" *International Journal of Inventory Research*, **1**, 150–173.
- [21]. Wang*, W.-Y., Gupta, D., and Potthoff, S. 2009. "On Evaluating the Impact of Flexibility Enhancing Strategies on the Performance of Nurse Schedules," *Health Policy*, **93**, 188–200.
- [22]. Gupta, D., and Wang*, L. 2009. "A Stochastic Inventory Model with Trade Credit," *Manufacturing & Service Operations Management*, **11**, 4–18.
- [23]. Gupta, D. 2008. "Flexible Carrier-Forwarder Contracts for Air Cargo Business," *Journal of Pricing and Revenue Management*, **7**, 341–356.
- [24]. Gupta, D., and Denton*, B. 2008. "Appointment Scheduling in Health Care: Challenges and Opportunities," *IIE Transactions*, **40**, 800–819.
- [25]. Gupta, D., and Wang*, L. 2008. "Revenue Management for a Primary Care Clinic in the Presence of Patient Choice," *Operations Research*, **56**, 576–592.
- [26]. Gupta, D. 2007. "Surgical Suites' Operations Management," *Production & Operations Management Journal*, **16**, 689–700.
- [27]. Amaruchkul*, K., Cooper, W. L., and Gupta, D. 2007. "Single-Leg Air-Cargo Revenue Management," *Transportation Science*, **41**, 457–469.
- [28]. Gupta, D., Natarajan, M., Gafni, A., Wang*, L., Shilton, D., Holder, D., and Yusuf, S. 2007. "Capacity Planning for Cardiac Catheterization: A Case Study," *Health Policy*, **82**, 1–11.
- [29]. Gupta, D., and Wang*, L. 2007. "Capacity Management for Contract Manufacturing," *Operations Research*, **55**, 367–377.
- [30]. Gupta, D., Potthoff, S., Blowers, D., and Corlett, J. 2006. "Performance Metrics for Advanced Access," *Journal of Healthcare Management*, **51**, 246–259.

- [31]. Gupta, D., and Selvaraju*, N. 2006. "Performance Evaluation and Stock Allocation in Capacitated Serial Supply Systems," *Manufacturing & Service Operations Management*, **8**, 169–191.
- [32]. Cooper, W. L., and Gupta, D. 2006. "Stochastic Comparisons in Airline Revenue Management," *Manufacturing & Service Operations Management*, **8**, 221–234. (M&SOM Best Paper Award Finalist for 2009)
- [33]. Gupta, D., and Weerawat*, W. 2006. "Supplier–Manufacturer Coordination in Capacitated Two-Stage Supply Chains," *European Journal of Operational Research*, **175**, 67–89.
- [34]. Gupta, D., Hill, A., and Bouzdine-Chameeva, T. 2006. "A Pricing Model for Clearing End of Season Retail Inventory," *European Journal of Operational Research*, **170**, 518–540.
- [35]. Gupta, D., and Magnusson*, T. 2005. "The Capacitated Lot-Sizing and Scheduling Problem with Sequence-Dependent Setup Costs and Setup Times," *Computers and Operations Research*, **41**, 727–747.
- [36]. Gupta, D., and Cooper, W. L. 2005. "Stochastic Comparisons in Production Yield Management " *Operations Research*, **53**, 377–384.
- [37]. Denton*, B., and Gupta, D. 2004. "Strategic Inventory Deployment in the Steel Industry," *IIE Transactions*, **36**, 1083–1097. (Featured article in IE Magazine, November 2004)
- [38]. Gupta, D., and Benjaafar, S. 2004. "Make-to-order, Make-to-stock, or Delay Product Differentiation – A Common Framework for Modeling and Analysis," *IIE Transactions*, **36**, 529–546. (Featured article in IE Magazine, June 2004)
- [39]. Denton*, B., and Gupta, D. 2003. "A Sequential Bounding Approach for Optimal Appointment Scheduling," *IIE Transactions*, **35**, 1003-1016. (Winner of 2005 IIE Outstanding Publication Award, 2005 IIE Transactions best paper award, and a featured article in IE Magazine, November 2003)
- [40]. Denton*, B., Gupta, D., and Jawahir, K. 2003. "Managing Increasing Product Variety at Integrated Steel Mills," *Interfaces*, **33**, 41-53.
- [41]. Gupta, D., and Gerchak Y. 2002. "Quantifying Operational Synergies in a Merger/ Acquisition," *Management Science*, **48**, pp. 517-533.
- [42]. Gupta, D., Gunalay*, Y., and Srinivasan, M. M. 2001. "On the Relationship Between Preventive Maintenance and Manufacturing System Performance," *European Journal of Operational Research*, **132**, pp. 146-162.
- [43]. Benjaafar, S., and Gupta, D. 1999. "Workload Allocation in Multi-Product, Multi-Facility Production Systems with Setup Times," *IIE Transactions*, **31**, pp. 339-352.
- [44]. Gupta, D., and Malina*, R. 1999. "Group Testing in Presence of Classification Errors," *Statistics in Medicine*, **18**, pp. 1049-1068.
- [45]. Gunalay*, Y., and Gupta, D. 1998. "Threshold Start-Up Control Policy for Polling Systems," *Queueing Systems: Theory and Applications*, **29**, pp. 399-421.

- [46]. Sheikhzadeh, M., Benjaafar S., and Gupta D. 1998. "Machine Sharing in Manufacturing Systems: Total Flexibility versus Chaining," *International Journal of Flexible Manufacturing Systems*, **10**, pp. 351-378.
- [47]. Gupta, D., and Srinivasan, M. M. 1998. "How Does Product Proliferation Affect Responsiveness?" *Management Science*, **44**, pp. 1017-1020.
- [48]. Benjaafar, S., and Gupta, D. 1998. "Scope versus Focus: Issues of Flexibility, Capacity, and Number of Production Facilities," *IIE Transactions*, **30**, pp. 415-425.
- [49]. Duenyas, I., Gupta, D., and Lennon, T. 1998. "Control of a Single-Server Tandem Queueing System with Setups," *Operations Research*, **46**, pp. 218-230.
- [50]. Gunalay*, Y., and Gupta, D. 1997. "Polling Systems with a Patient Server and State Dependent Setup Times," *IIE Transactions*, **29**, pp. 469-486.
- [51]. Gupta, D., and Srinivasan, M. M. 1996. "Polling Systems with State-Dependent Setup Times," *Queueing Systems: Theory and Applications*, **22**, pp. 403-423.
- [52]. Gupta, D., and Buzacott, J. A. 1996. "A Goodness Test for Operations Measures of Manufacturing Flexibility," *International Journal of Flexible Manufacturing Systems*, **8**, pp. 233-245.
- [53]. Gupta, D., and Srinivasan, M. M. 1996. "The Variance Paradox and its Implications for Japanese Production Theory," *Interfaces*, **26**, pp. 69-77.
- [54]. Gupta, D. 1996. "The (Q, r) Inventory System with an Unreliable Supplier," *INFOR*, **34**, pp. 59-76.
- [55]. Srinivasan, M. M., and Gupta, D. 1996. "When Should a Roving Server be Patient?" *Management Science*, **42**, pp. 437-451.
- [56]. Gerchak, Y., Gupta, D., and Henig, M. 1996. "Reservation Planning for Elective Surgery under Uncertain Demand for Emergency Surgery," *Management Science*, **42**, pp. 321-334.
- [57]. Gupta, D., and Gerchak Y. 1995. "Product Durability and Lot Sizing Models," *European Journal of Operational Research*, **84**, pp. 371-384.
- [58]. Gupta, D. 1993. "On Measurement and Valuation of Manufacturing Flexibility," *International Journal of Production Research*, **31**, pp. 2947-2958.
- [59]. Gupta, D., and Buzacott, J.A. 1993. "Models for First-Pass FMS Investment Analysis," *International Journal of Flexible Manufacturing Systems*, **5**, pp. 263-286.
- [60]. Gupta, D., Gerchak, Y. and Buzacott, J.A. 1992. "The Optimal Mix of Flexible and Dedicated Manufacturing Capacities: Hedging Against Demand Uncertainty," *International Journal of Production Economics*, **28**, pp. 309-319.
- [61]. Gupta, D. 1992. "On the Economic Lot Scheduling Problem with Backlogging: the Common Cycle Approach," *Operations Research Letters*, **12**, pp. 101-109.
- [62]. Gerchak, Y., and Gupta, D. 1991. "On Apportioning Costs to Customers in Centralized Continuous Review Inventory Systems," *Journal of Operations Management*, **10**, pp. 546-551.

- [63]. Gupta, D., and Dai*, Z. 1991. "A Heuristic Procedure for Determining Ordering and Price Discount Policies for Commodities with Two Period Perishability," *Engineering Cost and Production Economics*, **21**, pp. 177-190.
- [64]. Gupta, D., and Buzacott, J.A. 1990. "A Production System with Two Job Classes, Changeover Times and Revisitation," *Queueing Systems: Theory and Applications*, **6**, pp. 353-368.
- [65]. Gupta, D., and Buzacott, J.A. 1989. "A Framework for Understanding Flexibility of Manufacturing Systems," *Journal of Manufacturing Systems*, **8**, pp. 89-97.
- [66]. Buzacott, J.A., and Gupta, D. 1988. "Impact of Flexible Machines on Automated Manufacturing Systems," *Annals of Operations Research*, **15**, pp. 169-205.
- [67]. Gerchak, Y., and Gupta, D. 1987. "How Many Lottery Tickets to Buy?," *Operations Research Letters*, **6**, pp. 69-71.
- [68]. Gupta, D., Alam, M. and Seth, K. 1985. "An $M/M/1$ Queue with a Generalized Dynamic Promotion Rule," *International Journal of Systems Science*, **16**, pp. 457-464.

Monographs & Refereed Book Chapters:

- [69]. Gupta, D., and Potthoff, S. 2016. "Matching Supply and Demand for Hospital Services," *Foundations and Trends in Technology, Information and Operations Management*, Research Monograph, Now Publishers (in press).
- [70]. Gupta, D. 2012. "Queueing Models for Healthcare Operations," Chapter 2 in *Healthcare Operations Management*, Edited by Brian Denton*, Springer, NY.
- [71]. Gupta, D., and Wang*, W.-Y. 2011. "Patient Appointments in Ambulatory Care," Chapter 4 in *Handbook of Healthcare System Scheduling: Delivering Care When and Where It is Needed*, Edited by Randolph W. Hall, Springer, NY.
- [72]. Gupta, D., and Gunalay*, Y. 1997. "Recent Advances in the Analysis of Polling Systems," *Advances in Combinatorial Methods and Applications to Probability and Statistics*, Edited by N. Balakrishnan, Statistics in Industry and Technology Series, Birkhauser, Boston.
- [73]. Alam, M., Gupta, D., Ahmed, S.I. and Raouf, A. 1985. "Performance Modeling and Evaluation of Flexible Manufacturing Systems Using Semi-Markov Approach," *Flexible Manufacturing: Recent developments in FMS, Robotics, CAD/CAM, CIM*, A. Raouf and S.I. Ahmed (Editors), Elsevier Science Publishing Company, NY, 87-118.

Reports:

- [74]. Gupta, D., and Chen*, Y. 2014. "Statistical Analysis of Fare Compliance," published by the Center for Transportation Studies, University of Minnesota, Report Number CTS 14-08, available on the web at <http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=2370>.

- [75]. Gupta, D., and Chen*, H.-W. 2012. "Highway Cost Allocation and Determination of Heavy Freight Truck Permit Fees," published by the Minnesota Department of Transportation & the Center for Transportation Studies, University of Minnesota, Report Number MN/RC 2012-14.
- [76]. Gupta, D., Vedantam* A., and Azadivar* J. 2011. "Optimal Contract Mechanism Design for Performance-Based Contracts," published by the Minnesota Department of Transportation & the Center for Transportation Studies, University of Minnesota, Report Number MN/RC 2011-18, available on the web at <http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=2050>.
- [77]. Gupta, D., Tokar-Erdemir* E., Kuchera* D., Mannava* A. K., and Xiong* W. 2010. "Optimal Manpower Planning and Shift Scheduling for Snow & Ice Removal," published by the Minnesota Department of Transportation & the Center for Transportation Studies, University of Minnesota, Report Number Mn/DOT 2011-03, available on the web at <http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=1982>.
- [78]. Gupta, D. and Peterson*, A. 2009. "Statistical Methods for Materials Testing," published by the Minnesota Department of Transportation & the Center for Transportation Studies, University of Minnesota, Report Number Mn/DOT Mn/DOT 2009-41, available on the web at <http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=1850>.
- [79]. Gupta, D., Chen*, H.W., Miller, L.A., Surya* F. 2008. "Improving Capacity Planning for Demand Responsive Paratransit Services," published by the Minnesota Department of Transportation & the Center for Transportation Studies, University of Minnesota, Report Number Mn/DOT 2008-09, available on the web at <http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=1604>.
- [80]. Gupta, D. 2005. "Capacity Planning and Patient Flow Management," Chapter 3 in the report of the WTEC panel on *Operations Research for Healthcare Delivery Systems*, Panelists: Sainfort, F., Blake, J., Gupta, D., and Rardin R., sponsored by the National Science Foundation and the Agency for Healthcare Research and Quality, available at <http://wtec.org/or/report/OR-report.pdf>

INVITED TALKS

- [1]. WP Carey School of Business, ASU, February 21, 2020.
- [2]. MIT Sloan School of Business, October 28, 2019.
- [3]. Penn State Smeal School of Business, October 11, 2019.
- [4]. London Business School, May 30, 2019.
- [5]. HAS Distinguished Scholar Lecture, INFORMS, November 4, 2018.
- [6]. Kellogg School of Management, May 16, 2018.
- [7]. University of Texas, Austin, ORIE Group Seminar Series, December 1, 2017.

- [8]. Workshop to honor Professor John Buzacott, University of North Carolina, Chapel Hill, June 18, 2017.
- [9]. 2017 Healthcare Symposium, University of Texas, Austin, April 7, 2017.
- [10]. ISOM Research Workshop, University of Florida, Gainesville, February 24, 2017.
- [11]. University of Maryland, December 8, 2016
- [12]. Virginia Tech, January 29, 2015
- [13]. University of Buffalo, March 23, 2015
- [14]. University of Wisconsin, Madison, April 8, 2015
- [15]. University of Michigan, Ann Arbor, April 10, 2015
- [16]. Northwestern University, April 14, 2015
- [17]. MIT, April 29, 2015
- [18]. University of Illinois, Urbana Champaign, September 17, 2015
- [19]. University of Tennessee, Knoxville, October 7, 2015
- [20]. Duke University, October 14, 2015
- [21]. University of Washington, Seattle, November 17, 2015
- [22]. Junior Faculty and Doctoral Student Colloquium, IIE Conference, May 30, 2015, Nashville.
- [23]. Junior Faculty Colloquium, and Doctoral Student Colloquium, INFORMS, Nov 1, 2015, Philadelphia.
- [24]. Semi-plenary talk at the Applied Healthcare Operations Management and Research Conference, May 7, 2015, Washington, DC.
- [25]. Johns Hopkins University, March 7, 2014
- [26]. University of Connecticut, April 4, 2014
- [27]. Pennsylvania State University, April 25, 2014
- [28]. University of British Columbia, September 15, 2014
- [29]. University of Cincinnati, October 31, 2014
- [30]. Georgia Tech, November 18, 2014
- [31]. Indian School of Business, December 22, 2014.
- [32]. New York University, November 6, 2013
- [33]. University of Texas, Austin, Nov 22, 2013
- [34]. Jones Lecture, Dartmouth College, February 22, 2013.

- [35]. Semi-plenary talk at the 32nd Turkish OR Society Conference, Istanbul, Turkey, June 20, 2012.
- [36]. Invited lecture delivered as part of McGill University's CREATE program on Healthcare Operations and Information Management, Toronto, Canada, May 4, 2012.
- [37]. University at Buffalo Industrial and Systems Engineering Department's research symposium on healthcare, March 22, 2012.
- [38]. Katz School of Business, University of Pittsburgh, March 16, 2012.
- [39]. University of Texas at Austin, January 27, 2012.
- [40]. Purdue University, November 18, 2011.
- [41]. Invited lecture delivered as part of McGill University's CREATE program on Healthcare Operations and Information Management, Montreal, Canada, June 29, 2011.
- [42]. Cornell University, November 4, 2010.
- [43]. McGill University, September 24, 2010.
- [44]. MIT, November 4, 2009
- [45]. Clemson University, October 21, 2009
- [46]. Naval Postgraduate School, April 16, 2009.
- [47]. Naval Postgraduate School, February 12, 2009.
- [48]. Allina Hospitals and Clinics, August 18, 2008
- [49]. Mayo Clinic, September 22, 2008.
- [50]. Third Annual Innovations in Healthcare Delivery Workshop, Cincinnati Children's Hospital, September 18-19, 2008.
- [51]. Indian School of Business, Hyderabad, July 15, 2008
- [52]. Indian Institute of Management, Ahmedabad, July 21, 2008.
- [53]. Lehigh University, December 7, 2007
- [54]. Texas A&M University, September 17, 2007
- [55]. Southern Methodist University, October 18, 2006.
- [56]. NSF/NIBIB Workshop on Healthcare Systems Engineering, June 15-16, 2006.
- [57]. INFORMS Practice Conference, May 1, 2006.
- [58]. Mayo Clinic, April 13, 2006.
- [59]. University of Miami Executive MBA Program, March 4, 2006.

- [60]. University of British Columbia, February 24, 2006.
- [61]. University of Miami, March 2, 2005.
- [62]. University of Michigan, October 13, 2004.
- [63]. National University of Singapore, June 7, 2004
- [64]. Case Western Reserve University, March 21, 2003.
- [65]. National University of Singapore, June 3, 2004.
- [66]. WTEC workshop on OR for Healthcare Delivery, Co-sponsored by NSF, AHRQ and NCI, December 16, 2003.
- [67]. Indian Institute of Technology, Delhi, November 22, 2002.
- [68]. National University of Singapore, October 30, 2002.
- [69]. National University of Singapore, November 6, 2002.
- [70]. Bilkent University, Ankara, Turkey, October 4, 2002.
- [71]. McGill University, September 16, 2002.
- [72]. University of Minnesota, October 25, 2001.
- [73]. University of Waterloo, June 15, 2001.
- [74]. University of British Columbia, March 16, 2001.
- [75]. University of Minnesota, March 7, 2001.
- [76]. University of Waterloo, Ontario, September 28, 1998.
- [77]. University of Toronto, Ontario, November 20, 1997.
- [78]. University of Minnesota, Minneapolis, October 5, 1995
- [79]. University of Michigan, September 29, 1995.
- [80]. University of Waterloo, Ontario, February 20, 1995.
- [81]. University of Leeds, U. K., May 4, 1993.

COURSES TAUGHT

Information, Risk and Operations Management:

- OM 380 & OM 392 Healthcare Operations Management (Ph.D. Class)
- OM 386 Data Driven Healthcare Operations Management (MSBA Class)
- OM386 Healthcare Analytics (MBA Class)

- OM337/MIS373 Healthcare Analytics (U/G Class)

Industrial & Systems Engineering: (University of Minnesota)

- IE8794 Optimization with Learning & Model Uncertainty
- IE8990 Quantitative Methods for Managing Supply Chains
- IE8552 Advanced Topics: Stochastic Inventory Models
- IE8552 Advanced Topics: Production Systems
- IE5545 Decision Analysis
- IE4521 Statistics, Quality and Reliability

Professional MS Degree Programs: (University of Minnesota)

- MOT8113 Operations Management for Competitive Advantage (Management of Technology Program)
- MS5101 Operations Management and Manufacturing Strategy (Manufacturing Systems Engineering Program)

MBA Programs:

- O727 Service Operations Management (McMaster University)
- O722 Modern Manufacturing Strategy (McMaster University)
- Q712 Decision Analysis (McMaster University)
- Q650 Operations Management (McMaster University)
- OM 605 Manufacturing and Supply Operations (University of Michigan)

B.Com. Program: (McMaster University)

- 4QA3 Production Planning & Inventory Control
- 3QC3 Operations Management
- 2QA3 Business Statistics

POSTDOCTORAL AND GRADUATE ADVISEES

- Number of postdoctoral advisees: 9 (9 completed)
- Number of Ph. D. advisees: 19 (14 completed, 1 exited program, 4 in progress)
- Number of MS advisees: 16 Plan B (16 completed); 3 Plan A (3 completed)

- Number of Professional MS advisees: 14 Plan B (14 completed)

SELECTED DISCIPLINE-RELATED SERVICE ACTIVITIES

- Judge, JFIG paper competition, 2020 & 2019.
- Judge, Pierskalla Competition, 2020 & 2019.
- Member of Organizing Committee, Midwest Healthcare Conference held at the Gies Business School, UIUC, 2019.
- Cluster chair, Public Health and Health Policy Cluster, INFORMS Healthcare Conference, to be held at MIT, July 27-29 2019.
- Cluster chair, Public Health & Policy, INFORMS Healthcare Conference, Rotterdam, The Netherlands, 2017.
- Cluster Chair, OR-Informed Health Care Policies, INFORMS 2016, Nashville, TN.
- Judge, 2016 Pierskalla paper competition.
- President, Health Applications Society, 2015-16, Vice President 2014-15.
- Co-chair, 2015 CORS-INFORMS Conference, Montreal, Canada.
- Member, Advisory Committee, 2015 INFORMS Health Care Conference, Nashville, TN.
- Judge, Seth Bonder Scholarship, 2015.
- Healthcare Operations Management Special Interest Group (SIG) Chair, Manufacturing & Service Operations Management Society, 2011-13 & 2013-15.
- Member organizing committee, 2nd INFORMS Healthcare Conference, Chicago, June 23-26, 2013.
- Member organizing committee and tutorial sessions organizer, INFORMS Healthcare 2011 Conference, Montreal, June 20-22, 2011.
- Ad hoc grant application reviewer for the Social Sciences and Humanities Research Council of Canada and the Natural Sciences and Engineering Research Council of Canada (1988 - present).
- Reviewer, Technology Foundation STW, a Dutch funding agency for academic research in the field of applied sciences, 2009.
- Reviewer, Health Services Research program, Ministry of Health, Singapore, 2009 & 2011.
- Panelist and Proposal Reviewer, CMMI (formerly DMI) Division, NSF, numerous panels from 2001 – present.
- Expert Panelist, National Cooperative Highway Research Program Synthesis on Selection and Evaluation of Alternative Contracting Methods to Accelerate Project Completion (NCHRP 20-05/Topic 38-12), 2007.

- Judge, Pierskalla Paper Competition, Health Applications Section, INFORMS, 2016 & 2006.
- Panel member, NSF-sponsored WTEC study of “International Research and Development in Operations Research and Systems Science for Healthcare Delivery Systems,” 2003–5.
- Judge, INFORMS’ Junior Faculty Interest Group Paper Competition, 2004.
- Board member, Process Industries Division, Institute of Industrial Engineers, 2004-5.
- Co-chair and organizer, NSF-sponsored symposium on “Supply Chain Management in Process Industries,” May 6–7, 2004.
- Invited Participant, NSF Workshop on Using Operations Research to Improve Health Care Delivery Systems, University of Michigan, Ann Arbor, September 25-27, 2002.
- Invited Participant, Workshop on Engineering and Health Care Delivery Systems, National Academy of Engineering, May 21-22, 2001.
- Panelist and Judge, 1999-2000 Ontario Graduate Scholarship Program Competition, Management and Administrative Studies Panel.
- Judge, 1997 MSOM Student Paper Competition.
- Ad hoc referee for a variety of journals including:
Academy of Management Review, European Journal of Operational Research, International Journal of Production Economics, IEEE Transactions on Automatic Control and on Systems, Man and Cybernetics, IIE Transactions, International Journal of Flexible Manufacturing Systems, Management Science, Operations Research, POMS, Queueing Systems, Journal of Operations Management, and Statistics in Medicine.
- Ad hoc book reviewer for Kluwer, ITP, John Wiley and other publishers.

SERVICE — SELECTED OTHER ACTIVITIES

University Level:

- [1]. Faculty representative, McMaster University Senate, 1998–1999.
- [2]. Graduate Council Executive Committee, 1998–1999.
- [3]. Faculty of Business Representative, Graduate Council, 1996–1999.
- [4]. Chair, Academic Affairs Committee, McMaster University Faculty Association (MUFA), 1994–1995.
- [5]. Chair, Public Relations Committee, MUFA, 1993–1994.
- [6]. McMaster University Faculty Association Executive, 1993–1995.

School/College Level:

- [1]. Director of Graduate Studies for Industrial & Systems Engineering, 2005–2009.

- [2]. School of Business Academic Dishonesty Tribunal, 1997–1999.
- [3]. Graduate Admissions and Study Committee, 1996–1999.
- [4]. Member of the School of Business' Executive Education Committee, 1996–1998.
- [5]. Engineering and Management Operating Committee, Faculty of Engineering and School of Business, 1990–1993.
- [6]. Undergraduate Admissions Policy and Review Committee, 1989–1992.

Departmental Level:

- [1]. Executive Committee Member, IROM Department, 2018-2020.
- [2]. Chair, ISyE Undergraduate Program Committee, 2010–2011.
- [3]. Promotion & Tenure Subcommittee, Mechanical Engineering Department, 2007–2010 (Chair in 2010).
- [4]. Chair, IE Search Committee, 2003–2004.
- [5]. Member, Strategic Planning Committee, 2003–2004.
- [6]. Chair, Ad-hoc IE Graduate Admissions Committee, 2003–2004.
- [7]. Acting Division Director, IE Division, 2002–2003.
- [8]. Chair, IE Search Committee, 2001–2002.
- [9]. Member, Strategic Planning Subcommittee, IE Division, 2001–2002.
- [10]. Member, ME/IE Ph. D. Preliminary Examination Committee 2000–2001 (Chair in Fall 2001 cycle).
- [11]. Member, Ad-hoc ME/IE Graduate Program Committee, 2000–2001.

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