SRIMATHY MOHAN (GOPALAKRISHNAN)

Department of Supply Chain Management W.P.Carey School of Business Arizona State University PO Box 874706 Tempe, AZ 85287-4706

Off: (480) 965-6354 Fax: (480) 965-8629 <u>srimathy@asu.edu</u>

EDUCATION

	Ph. D.	University of Montreal, Montreal, CANADA Operations Research	1998
		Dissertation: A Study on Two Arc Routing Problems	
		Co-chairs: Michel Gendreau, Jean-Marc Rousseau	
	M.S.	Massachusetts Institute of Technology	1993
		Operations Research	
		Thesis: Optimization Models for Production Planning in	
		Metal Tube Manufacturing	
		Chair: Anantaram Balakrishnan	
	M.S.	University of Alabama	1991
		Industrial Engineering	
		Thesis: A Fuzzy Set Based Approach for the Prediction of	
		Cumulative Trauma Disorders	
		Chair: Thomas Wayne Merritt	
	B.S.	University of Alabama	1989
		Industrial Engineering	
		Magna cum laude	
	[~] а ремі	C ADDOINTMENTS	
A			
	Associate Professor		Iune 2012 –
	Departme	Present	
	W. P. Care		
	Arizona State University		
	/-		
	Assistant 1	Professor	August 2008 -
	Departmen	nt of Supply Chain Management	May 2012
	W. P. Care	ey School of Business	-
	Arizona S	tate University	

Assistant Professor School of Global Management and Leadership Arizona State University

Visiting Assistant Professor School of Global Management and Leadership Arizona State University June 2003 – July 2008

August 1999 -May 2003

REFEREED JOURNAL PUBLICATIONS

S. Mohan has published under two names – S. Mohan and S. Gopalakrishnan

- **S. Mohan**, M.F., Alam, J.W. Fowler, A. Printezis, and M. Gopalakrishnan (2013). "Improving Quality of Service through Performance Evaluation and Capacity Planning for Web-based Applications". In press, *Decision Sciences*.
- S. Mohan, M. Gopalakrishnan, R. Marathe and A. Rajan. (2012). "A note on modeling the capacitated lot-sizing problem with set-up carryover and set-up splitting", *International Journal on Production Research*, Vol. 50 (19), 5538-5543.
- Alam, M., S. Mohan, J. W. Fowler, and M. Gopalakrishnan (2012). "A Discrete Event simulation Tool for Performance Management of Web-based Application Systems", *Journal* of Simulation, Vol. 6, 21-32.
- Mohan, S., M. Gopalakrishnan, P. Mizzi (2011). "Improving the agility of a food distribution network: The case of a non-profit supply chain for the food insecure", *International Journal of Production Economics*, doi: 10.1016/j.ijpe.2011.05.019.
- Mohan, S., A. Printezis, and M. F. Alam (2010). "Impact of resource locking on performance of web-based applications", *International Journal of Operational Research*, Vol. 8 (3), 355-378.
- Dooley, K., T. Yan, S. Mohan, and M. Gopalakrishnan (2010). "Inventory Management and the Bullwhip Effect during the 2007-2009 Recession: Evidence from the Manufacturing Sector", *Journal of Supply Chain Management*, Vol. 46 (1), 12-18.
- Mohan, S., M. Gendreau, J-M. Rousseau (2010). "Heuristics for the Stochastic Eulerian Tour Problem", *European Journal of Operational Research*, Vol. 203 (1), 107-117.
- M. Gopalakrishnan, S. Mohan, A. Printezis, T. Laporte, and Q. Li (2009). "Improving the utilization of Catheterization labs at Scottsdale Healthcare", *Interfaces – Practice Abstract*, Vol. 39 (3), 288-290.

- Mohan, S., Printezis, A., and Alam, M. (2009). "A Framework for Modeling Web Based Applications with Resource Locking", *International Journal of Operational Research*, Vol. 6 (3), 289-303.
- Mohan, S. (2008). "Scheduling part-time personnel with availability restrictions and preferences to maximize employee satisfaction", *Mathematical and Computer Modelling*, Vol. 48 (11-12), 1806-1813.
- Mohan, S., M. Gendreau, and J-M. Rousseau (2008). "The Stochastic Eulerian Tour Problem", *Transportation Science*. Vol. 42 (2), 166-174.
- Mohan, S., M. Gopalakrishnan, and A. Chandrashekhar (2008). "Multi-item, Economic Order Quantity Model with Permissible Delay in Payments and a Budget Constraint", *European Journal of Industrial Engineering*, Vol. 2 (4), 446-460.
- Mohan, S. and M. Gopalakrishnan (2007). "Analytical framework for the multi-item, economic order quantity model with permissible delay in payments and a budget constraint A note". *International Journal of Production Planning and Control.* Vol. 18 (4), 361-363.
- Mohan, S., M. Gopalakrishnan, H. Balasubramanian, and A. Chandrashekhar (2007), "A Lognormal Approximation of Activity Duration in PERT using Two Time Estimates", *Journal of the Operational Research Society*, Vol 58, 827-831.
- Mohan, S. and D.M. Miller (2006), "A Simulation Analysis to Reduce Shipping Area Congestion in a Pharmaceutical Distribution Center," *International Journal of Industrial Engineering* Vol. 13 (3), 299-309.
- Gopalakrishnan, M., S. Mohan, and Z. He (2001), "A Tabu Search Heuristic for a Class of Maintenance Scheduling Problems," *Computers and Industrial Engineering*, Vol. 40, 149-160.
- Gopalakrishnan, M., D. Ke, J-M. Bourjolly, and S. Mohan (2001), "A Tabu Search Heuristic for the Capacitated Lot Sizing Problem with Setup Time and Setup Carryover," *Management Science*, Vol. 47, 851-863.
- Balakrishnan, A. and **S. Gopalakrishnan** (1996), "Selecting Ingot Sizes for Joint Production of Sheet Products," *INFORMS Journal on Computing*, Vol.8, 260-273.
- Merritt, T. W. and S. Gopalakrishnan (1994), "An Application of Fuzzy Set Theory to the Prediction of Cumulative Trauma Disorders of the Upper Extremity," *International Journal of Industrial Ergonomics*, Vol. 13, 95-105.
- Gopalakrishnan, M., S. Gopalakrishnan, and D. M. Miller (1993), "A Decision Support System for Personnel Scheduling in a Newspaper Publishing Environment," *Interfaces*, Vol. 23, 104-115.

INVITED REFEREED BOOK CHAPTERS

S. Mohan (2011). "Eulerian Path and Tour Problems" in Wiley's *Encyclopedia of Operations Research and Management Science*, James J. Cochran (Editor-in-chief), John Wiley and Sons.

REFEREED CONFERENCE PROCEEDINGS

- Mohan, S. and A. Balakrishnan (2012). "Intermediate Inventory Management at an Aluminum Tube Manufacturing Plant", *17th International Symposium on Inventories*, Budapest, Hungary, August, 20-24, 2012 (Full paper)
- Mohan, S., M. Gopalakrishnan, P. Mizzi (2010). "Improving the agility of a food distribution network: The case of a non-profit supply chain for the food insecure", 16th International Symposium on Inventories, Budapest, Hungary (Full paper)
- Alam, M. F., M. Gopalakrishnan, and S. Mohan (2007), "A Generic Simulation Model for Web-based Computer Applications in Distributed Computing Environments", *Decision Sciences Institute Annual Meeting*, Phoenix. (Full paper)
- Mohan, S., M. Gopalakrishnan, H. Balasubramanian, and A. Chandrashekar (2005), "A Lognormal Approximation of Activity Duration in PERT using Two Time Estimates," *Decision Sciences Institute Annual Meeting*, San Francisco. (Full paper)
- Mohan, S. (2005), "TABUCARP: A Tabu Search Algorithm for the Capacitated Arc Routing Problem with Work Load Balancing", *Sixth International Conference on Operations and Quantitative Management*, Indore, India. (Full paper)
- Gopalakrishnan, M., S. Mohan, and R. Seshadri (2005), "Capacity and Performance Management in a Web-based Distributed Computing Environment – A Simulation Approach", Sixth International Conference on Operations and Quantitative Management, Indore, India. (Full paper)
- Mohan, S. (2003), "Intermediate Inventory Management at an Aluminum tube Manufacturing Facility," *Fifth International Concerence of the Operations Management Society of India*, Indore, India. (Abstract only)
- Gopalakrishnan, M., S. Mohan and P. Mizzi (2002), "Improving the Efficiency of a Food Supply Chain for the Needy: A Case Study," *Decision Sciences Institute Annual Meeting*, San Diego. (Abstract only)

Bourjolly, J-M., D. Ke, M. Gopalakrishnan, M.C.N. Gramani and S. Mohan (2001), "On a Tactical/Operational Production Planning Problem in Supply Chain Management," *MIC2001 – 4th Metaheuristics International Conference*, Porto, Porutgal. (Abstract only)

CURRENTLY UNDER REVIEW

- **S. Mohan** and A. Balakrishnan. "Intermediate Inventory Management at an Aluminum Tube Manufacturing Plant" Currently under first review at *International Journal of Production Economics*
- S. Mohan. "Stochastic Eulerian Tour Problem Properties and Heuristics" Invited article under third review - Wiley's Encyclopedia of Operations Research and Management Science

WORK IN PROGRESS

- Q. Li, S. Mohan, M. Gopalakrishnan, J. Fowler and A. Printezis, "Improving the efficiency of Catheterization labs using Simulation" – To be submitted to *IIE Transactions on Healthcare Systems Engineering*
- Mohan, S., Gopalakrishnan, M., A. Feller, and S. Pattabiraman, "Technology division of a financial services company reduces cost of product upgrades using emulation driven simulations", To be submitted to *Decision Sciences*
- Li, Q., S. Mohan, J. Fowler and M. Gopalakrishnan, "Random keys Genetic Algorithm heuristic for Operating Room Scheduling", To be submitted to *Computers and Operations Research*
- Li, Q., S. Mohan, J. Fowler and M. Gopalakrishnan, "Simulation Optimization for Operating Room Scheduling", To be submitted to *Production and Operations Management*
- Mohan, S., M. Gendreau, and J.-M. Rousseau, "A Tabu Search Based heuristic for the Capacitated Arc Routing Problem with Load Balancing", To be submitted to *Computers and Operations Research*

CONFERENCE PRESENTATIONS

- Mohan, S., Gopalakrishnan, M., Fowler, J. W., Li, Q., and Printezis, A. (2012). "Improving the Efficiency of Catheterization Laboratories using Simulation." *INFORMS 2012 Annual Meeting*, Phoenix, Arizona, USA, October 14-17, 2012.
- Mohan, S., J.W. Fowler, and Q. Li (2011), "Multi-objective Operating Room Planning and Scheduling." Interactive Session at *Decision Sciences Institute 42nd Annual Meeting*, Boston, 19-22 November 2011.
- Mohan, S., J.W. Fowler, and Q. Li (2011), "Multi-objective Operating Room Planning and Scheduling." Invited Session on Evoluitonary Multi-Objective Optimization at *INFORMS* 2011 Annual Meeting, Charlotte, North Carolina, 13-16 November 2011.
- Mohan, S., J.W. Fowler, Q. Li, and M. Gopalakrishnan (2011), "Operating Room Planning and Scheduling in Hospitals", *POMS 22nd Annual Meeting*, Reno, Nevada, April 29 – May 2, 2011.
- Mohan, S., Q. Li, and J.W. Fowler (2010), "A Two Phase Approach to Model and Optimize Operating Room Planning and Scheduling." XV Annual International Conference of the Society of Operations Management (SOM2010), Mumbai, India, 17-19 December 2010.
- Gopalakrishnan, M. and S. Mohan (2009). "Quality of Service in Web-based Applications: The Effects of Resource Locking on Capacity Planning." XIII Annual Conference of the Society of Operations Management, Chennai, India, 20-22 December 2009.
- Gopalakrishnan, M., S. Mohan and Q. Li. (2009). "ED Crowding Modeling and Analysis." *CORS/INFORMS International Conference, Toronto, Canada*, June 14-16, 2009.
- Fowler, J., M. Gopalakrishnan, Q. Li, S. Mohan and A. Printezis (2009). "Scheduling and Capacity Planning in Cath Labs: A Real-World Analytical Study." 20th Annual Conference of the Production and Operations Management Society, May 1-4, Orlando, Florida
- F. Alam, J. Fowler, M. Gopalakrishnan, S. Mohan, and A. Printezis (2009). "Improving Quality of Service in E-business: Resource Locking and Capacity Planning." 20th Annual Conference of the Production and Operations Management Society, May 1-4, Orlando, Florida
- Feller, A., M. Gopalakrishnan, and S. Mohan (2009). "Capacity Modeling for Application Servers in a Distributed SOA Computing Environment." *INFORMS Western Regional Conference*, Tempe, Arizona, April 24-25, 2009.
- Mohan, S., M. Gopalakrishnan, A. Printezis, and Q. Li (2008). "Scheduling issues in Healthcare", Presented at *Decision Sciences Institute Annual Meeting*, Baltimore, Maryland.

- Mohan, S., M. Gopalakrishnan, A. Printezis, and Q. Li (2008). "ED crowding Problem Role of Bed Allocation", Presented at *Decision Sciences Institute Annual Meeting*, Baltimore, Maryland.
- Alam, M., S. Mohan, and A. Printezis (2007). "A framework for modeling web based applications as queuing systems with resource locking", Presented at *INFORMS Conference*, Seattle, Washington.
- Li, Q., S. Mohan, A. Printezis, M. Gopalakrishnan, and J. Fowler (2007). "Optimization of Catheterization Lab Scheduling Using Computer Simulation", Presented at *INFORMS Conference*, Seattle, Washington.
- Alam, M.F., M. Gopalakrishnan, and S. Mohan (2007). "A Generic Simulation Model for Webbased Computer Applications in Distributed Computing Environments", Presented at *Decision Sciences Institute Annual Meeting*, Phoenix, Arizona.
- Mohan, S., M. Gopalakrishnan, Q. Li, and N. Narayana (2007). "Academics, Industry, and a Nonprofit: Optimizing a Food Reclamation Center for the Food Insecure", Invited presentation at *Decision Sciences Institute Annual Meeting*, Phoenix, Arizona.
- Mohan, S. (2006). "Heuristics for the Stochastic Eulerian Tour Problem", Invited presentation at *Decision Sciences Institute Annual Meeting*, San Antonio, Texas.
- Gopalakrishnan, M., S. Mohan, and R. Seshadri (2005). "Capacity and Performance Management in a Web-based Distributed Computing Environment A Simulation Approach". Presented at the Sixth International Conference on Operations and Quantitative Management, Indore, India.
- Mohan, S. (2005). "TABUCARP: A Tabu Search Algorithm for the Capacitated Arc Routing Problem with Work Load Balancing", Presented at the *Sixth International Conference on Operations and Quantitative Management*, Indore, India.
- Mohan, S., M. Gopalakrishnan, H. Balasubramanian, and A. Chandrashekar (2005), "A Lognormal Approximation of Activity Duration in PERT using Two Time Estimates," Presented at *Decision Sciences Institute Annual Meeting*, San Francisco.
- Mohan, S. (2003). "Intermediate Inventory Management at an Aluminum Tube Manufacturing Facility", Presented at the *International Conference of the Society of Operations Management*, Indore, India.
- Gopalakrishnan, M., S. Mohan, and P. Mizzi (2002). "Improving the Efficiency of a Food supply chain for the Needy: A Case Study", Presented at *Decision Sciences Institute Annual Meeting*, San Diego, California.
- Gopalakrishnan, M. and S. Mohan (1999), "A Tabu Search Heuristic for Preventive Maintenance Scheduling," Presentes at *POMS International Conference*, New Delhi, India.

- Gendreau, M., S. Gopalakrishnan, and J-M. Rousseau (1999), "Heuristics for the Stochastic Arc Routing Problem," Presented at *Twelfth Meeting of the European Chapter on Combinatorial Optimization*, Island of Bendor, France.
- Gendreau, M. and S. Gopalakrishnan (1998), "The Stochastic Eulerian Tour Problem," Presented at *INFORMS/CORS Joint Meeting*, Montreal.
- Gendreau, M., S. Gopalakrishnan, and J-M. Rousseau (1997), "A Tabu Search Heuristic for the Capacitated Arc Routing Problem," Presented at *INFORMS Annual Meeting*, San Diego.
- Gendreau, M., S. Gopalakrishnan, and J-M. Rousseau (1997), "A Tabu Search Heuristic for the Capacitated Arc Routing Problem," Prtesented at *International Symposium on Mathematical Programming*, Lausanne, Switzerland.
- Gopalakrishnan, M., S. Gopalakrishnan and D.M. Miller (1988), "A Knowledge-Based Approach for Manpower Planning in a Newspaper Publishing Environment," Presented at *ORSA/TIMS National Conference*, Las Vegas.

EXTERNALLY SPONSORED RESEARCH GRANTS

Capacity and Process Modeling, ASU/American Express Sponsored Research Grant - **\$50,000**, December 2009 – June 2010

Capacity and Process Modeling, ASU/American Express Sponsored Research Grant - **\$105,000**, November 2008 – June 2009

Optimization of Catheterization Lab Scheduling using Simulation, Scottsdale Healthcare Sponsored Research Grant - **\$75,000**, January 2008 – December 2008

Information Technology Capacity Planning and Management in a Financial Services Firm, ASU/American Express Sponsored Research Grant

Phase 1 (with M. Gopalakrishnan), **\$75,000**, January 2003 - May 2003

Phase 2 (with M. Gopalakrishnan), **\$157,000**, August 2003 - May 2004

Phase 3 (with M. Gopalakrishnan), \$140,722, August 2004 – November 2005

Phase 3 extension (with M. Gopalakrishnan), \$60,000, December 2005 – July 2006

INTERNALLY SPONSORED GRANTS

- *Capacitated Lot-sizing Problem with Set-up Carryover and Set-up Splitting*, Dean's Award of Excellence Summer Research Grant, W.P. Carey School of Business, Arizona State University, **\$20,000**, Spring 2012.
- *Improving Quality of Service through Performance Evaluation and Capacity Planning for Web-based Applications*, Dean's Award of Excellence Summer Research Grant, W.P. Carey School of Business, Arizona State University, **\$20,000**, Spring 2011.
- *Improving the efficiency of a Cathlab using Simulation* (with A. Printezis), SGML Scholarship, Research, and Creative Activities Grant Program, Arizona State University, **\$6,450**, 2007.
- Simulations of a Food Reclamation Center: Leading Enhancement of a World Food Supply Chain for the Needy (with P. Mizzi), SGML Scholarship, Research, and Creative Activities Grant Program, Arizona State University, **\$8,400**, 2006.
- *Heuristics for the Stochastic Eulerian Tour Problem*, SGML Scholarship, Research, and Creative Activities Grant Program, **\$3,600**, 2006.
- Capacity and Performance Management in a Web-based Distributed Computing Environment (with A. Printezis and Q. Zhang), ASU West campus Provost's Multidisciplinary Grant and Aid (MGIA) Program, **\$29,296**, 2006.
- *Development of an Efficient Algorithm for the Capacitated Arc Routing Problem*, ASU West Scholarship, Research, and Creative Activities Grant Program, **\$5,500**, 2004.
- Design and Development of the Services Operations Management Course and Streamlining the Introduction to Operations Management Course, ASU West Council for Scholarly and Instructional Activity Program, \$3,000, 2004.

OTHER PUBLICATIONS

- Mohan, S., M. Gendreau, and J-M. Rousseau (2007) "The Stochastic Eulerian Tour Problem". *Interuniversity Research Center on Enterprise Networks, Logistics, and Transportation Working Paper*, CIRRELT-2007-45, University of Montreal, Montreal, Canada.
- Mohan, S., M. Gendreau, and J-M. Rousseau (2007) "Heuristics for the Stochastic Eulerian Tour Problem". *Interuniversity Research Center on Enterprise Networks, Logistics, and Transportation Working Paper*, CIRRELT-2007-46, University of Montreal, Montreal, Canada.

- Balakrishnan, A. and S. Gopalakrishnan (1994), "Selecting Ingot Sizes for Joint Order Processing in Sheet Manufacturing," *Sloan School of Management Working Paper* WP# 3734-94-MSA, Massachusetts Institute of Technology, Cambridge, MA
- Balakrishnan, A., S. Gopalakrishnan, and A. Kurebayashi (1993), "A Slack Based Lower Bound for the Permutation Flowshop Problem," *Sloan School of Management Working Paper* WP# 3573-93, Massachusetts Institute of Technology, Cambridge, MA.
- Gopalakrishnan, S. (1991), "Warehouse Simulation Study," *Alabama Productivity Center Technical Report*, University of Alabama, Tuscaloosa, Alabama.

INVITED PRESENTATIONS

Mohan, S (2005), "The Stochastic Euerian Tour Problem – Model and Heuristics", Fall 2005 Seminar Series, Department of Industrial Engineering, Ira A. Fulton School of Engineering, Arizona State University, Tempe.

POSTER SESSIONS

- Mohan S., "Intermediate Inventory Management in Aluminum Tube Manufacturing", The Institute for Social Sciences Research Launch, Arizona State University, Tempe, March 30, 2005.
- **Mohan S.**, "Intermediate Inventory Management in Aluminum Tube Manufacturing", Faculty Research Poster Session, Arizona State University west campus, October 2003.

COURSES TAUGHT

- QBA 502 Quantitative Business Analysis for MBAs
- QBA 221 Statistical Analysis
- OPM 301 Introduction to Operations Management
- SCM 300 Global Supply Operations
- SCM 303 Honors Global Supply Operations

ACADEMIC SERVICE

Doctoral Dissertation Co-chair

Qing Li, Industrial Engineering, September 2010 Mohammad Alam, Industrial Engineering, July 2008

Doctoral Dissertation Committee Member

Shamayleh Abdulrahim, Industrial Engineering, July 2010

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Ad-hoc Reviewer

European Journal of Operational Research, Transportation Science, Decision Sciences, European Journal of Operational Research, Journal o fOperational Research Society, Journal of Operations Management, International Journal of Production Economics, International Journal of Industrial Engineering, International Journal of Production Planning and Control, Supply chian Management: An International Journal, Computers and Operations Research, Journal of Simulation, Journal of supply Chain Management, Annals of Operations Research

Conference Session Chair

Fifth International Conference of the Operations Management Society of India, December 2003

UNIVERSITY SERVICE

Aug 2011
onwards
2006-2009
2008
2005-2006
2006-2007
May 2007
2004-2005
2004-2005
2006, 2007, 2009

HONORS AND ACTIVITIES

Arizona State University

	12/12
Dean's Award of Excellence Summer Research Grant, W.P. Carey Schoo School of Global Management and Leadership Research Award School of Global Management and Leadership Research Award School of Global Management and Leadership Research Award	l of Business 2010 2007 2006 2005
University of Montreal	
Department of Computer Science and Operations Research Scholarship FCAR Doctoral Fellowship	Sep 1996 - Aug 1998 Sep 1994 - Aug 1996
Massachusetts Institute of Technology	
Leaders for Manufacturing Program Research Assistantship Operations Research Center Research Assistantship May1992	Aug 1992 – Dec 1993 Aug 1991 –
University of Alabama	
Graduate Council Research Fellowship Graduate Council Fellowship Outstanding Industrial Engineering Senior Award Alabama Productivity Center Research Scholarship Engineering School's Undergraduate Research Award Phi Kappa Phi Undergraduate Research Award Alpha Pi Mu induction	Aug 1990 - May 1991 Aug 1989 - May 1990 Spring 1989 Spring 1989 Spring 1989 Spring 1989 Spring 1989 Spring 1989
Marjorie Ward Lynch Scholarship - Outstanding International Student	Jan 1988 – May 1989

PROFESSIONAL ASSOCIATIONS

INFORMS, Decision Sciences Institute

Member