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Curriculum Vitae

JEYAVEERASINGAM GEORGE SHANTHIKUMAR

Richard E. Dauch Chair in Manufacturing and Operations Management &
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Department of Management
Krannert School of Management
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EDUCATION

Ph.D. (1979) University of Toronto, Department of Industrial Engineering. Thesis: *Approximate Queueing Models of Dynamic Job Shops*. Supervisor: Professor J. A. Buzacott.

M.A.Sc. (1977) University of Toronto, Department of Industrial Engineering. Thesis: *Decomposition Approaches in Permutation Scheduling Problems*. Supervisor: Professor J. A. Buzacott.

B.Sc. (1972) University of Sri Lanka, Department of Mechanical Engineering. Placed first in the class of 1972.

EMPLOYMENT

2012-present: Academic Director, MS program in Global Supply Chain Management, Department of Management, Krannert School of Management, Purdue University, West Lafayette, IN.

2009-present: Professor, Department of Management, Krannert School of Management, Purdue University, West Lafayette, IN.

2009-present: Professor Emeritus, Department of Industrial Engineering and Operations Research, College of Engineering, University of California, Berkeley, CA.

2013-2015: Group Head, MIS/OM/QM, Department of Management, Krannert School of Management, Purdue University, West Lafayette, IN.

2012-2013: Area Head, Operations Management Group, Department of Management, Krannert School of Management, Purdue University, West Lafayette, IN.

2011-2015: Director, (DCMME) Dauch Center for the Management of Manufacturing Enterprises, Krannert School of Management, Purdue University, West Lafayette, IN.

2011-2015: Director, (GSCMI) Global Supply Chain Management Initiative, Krannert School of Management, Purdue University, West Lafayette, IN.

1993-2009: Professor, Department of Industrial Engineering and Operations Research, College of Engineering, University of California, Berkeley, CA.

1989-2009: Research Associate, Lawrence Berkeley Laboratories, Berkeley, CA.

1988-2001: Professor, Manufacturing, Information and Technology, Haas School of Business, University of California, Berkeley, CA.

1989-1992: Chairman of Management Science Group, School of Business Administration, University of California, Berkeley, CA.

1986-1988: Associate Professor of Management Science, University of California, Berkeley, CA.

1984-1986: Acting Associate Professor of Management Science, School of Business Administration, University of California, Berkeley, CA.

1982-1984: Associate Professor of Systems and Industrial Engineering, University of Arizona, Tucson, AZ.

1979-1982: Assistant Professor of Industrial Engineering and Operations Research, Syracuse University, Syracuse, NY.

1975-1979: Teaching Assistant, University of Toronto, Toronto, Ontario, Canada.

1973-1975: Assistant Lecturer, Department of Production Engineering, University of Sri Lanka, Peradeniya, Sri Lanka.

SCHOLARSHIPS, GRANTS, AND AWARDS

1972: Dr. C.A. Hewavitarne Prize in Engineering for the highest GPA in the final Part III (Senior year) examination in Engineering, November 1972.

1972: E.O.E. Pereira Gold Medal for the outstanding student graduating from the Faculty of Engineering, University of Sri Lanka.

1975-1979: Canadian Commonwealth Scholarship for M.A.Sc. and Ph.D.

1980: Outstanding Young Man of America award.

1980: (Summer) Supported under contract No. F30602-77-C-0235 with Rome Air Development Center, Rome, NY.

1981: (Summer) Supported by Syracuse University Senate Research Fund.

1981-1982: New York State Science and Technology Foundation Grant.

1983: (Summer) Supported by the University of Arizona, Engineering Experimentation Station Fund.

1984: (Summer) Supported by a Bell Core Research Grant.

1984-1990: Co-Principal Investigator, Air Force Office of Scientific Research Grant. Grant number AFOSR-84-0205.

1986-1987: Principal Investigator, National Science Foundation Grant. Grant number ECS-8601210.

1987-1988: Schwabacher Fellowship.

1988-1991: Principal Investigator, National Science Foundation Grant. Grant number ECS-8811234.

1989: (Summer) Information Science Foundation of Japan Grant.

1990: (Summer) Supported by the Sloan Foundation Grant for 'Consortium for Competitiveness and Cooperation'.

1990-1993: Co-Principal Investigator, Air Force Office of Scientific Research Grant. Grant number AFOSR-90201.

1991-1998: (Participant) Sloan Foundation Grant for 'Study on Competitive Semiconductor Manufacturing'.

1991-1994: Principal Investigator, National Science Foundation Grant. Grant Number DDM-9113008.

1993-1996: Principal Investigator, National Science Foundation Grant. Grant Number DMS-9308149.

1993 ORSA Lanchester Prize for the best publication in Operations Research: runner-up for the book *Stochastic Models of Manufacturing Systems*, co-authored with J. A. Buzacott. Was given an Honorable Mention.

1994-1996: Co-Principal Investigator, Semiconductor Research Corporation Grant for *Advances in Factory Logistics and Yield Management*.

1997-1998: Alpha Pi Mu Faculty of the Year Award

1999-2001: Principal Investigator, KLA-Tencor Corporation Grant for *Semiconductor Yield Management*.

1999-2001: Co-Principal Investigator, KLA-Tencor Corporation Grant for *Fabless-Foundry Partnership in Semiconductor Manufacturing*.

2000-2001: KLA-Tencor General Managers Award for the Best Team Project

2000-2001: Alpha Pi Mu Faculty of the Year Award

2002-2003: Alpha Pi Mu Faculty of the Year Award

2003-2004: Alpha Pi Mu Faculty of the Year Award

2004-2005: Co-Principal Investigator, National Science Foundation Grant. Grant number DMI-0434826.

2004-2005: Principal Investigator, KLA-Tencor Corporation Grant for *Semiconductor Yield Management*.

2005-2006: Principal Investigator, KLA-Tencor Corporation Grant for *Semiconductor Yield Management*.

2005-2008: Co-Principal Investigator (with Andrew Lim), National Science Foundation Grant. Grant number DMI-0500503, *Objective Operational Learning and Applications*.

2006-2008: Principal Investigator, Intel Grant for *Cycle Time Reduction in Semiconductor Fabrication Facilities*.

2008-2009: Co-Principal Investigator, Sustainable Products & Solutions Program Grant for *Improved Stoves for Health and Environmental Sustainability*.

2008-2009: Co-Principal Investigator (with Andrew Lim), Coleman Fung Risk Management Center Research Grant for *Fragility of Risk Measures and Other Computed Metrics*.

2010-2013: Co-Principal Investigator (with Andrew Lim and Max Shen), National Science Foundation Grant. Grant Number CMMI-1031637, *Coordinating Multiple Decision Makers in a Service Environment*

2012-2015: Co-Principal Investigator (with Andrew Lim), National Science Foundation Grant. Grant number CMMI-1201085, *Stochastic Optimization with Model Uncertainty and Learning*.

2014 Fellow of the Production and Operations Management Society (POMS)

2014 Fellow of the Institute for Operations Research and Management Science (INFORMS)

TEACHING EXPERIENCE

2009-present: Purdue University, West Lafayette, IN

1984-2009: University of California, Berkeley, CA

1987: (Summer) Invited lecturer for Advanced Management Program for Caribbean Managers (held in Kingston, Jamaica, July 6-24).

1987: (Summer) Invited lecturer for Asian Institute of Technology - U.C. Berkeley Management Development Program (held in Bangkok, Thailand, August 2-14, 1987).

1982-1984: University of Arizona, Tucson, AZ

1979-1982: Syracuse University, Syracuse, New York

1981: (Summer) Invited lecturer of Management Dynamics for International Executives on Production and Inventory Control.

1980: (Summer) Invited lecturer for Algerian Program organized by the International Management Development Department of Syracuse University on Scheduling.

1975-1979: Teaching Assistant at University of Toronto, Toronto, Ontario, Canada

1973-1975: Assistant Lecturer, Department of Production Engineering, University of Sri Lanka, Peradeniya, Sri Lanka.

1974-1975: Visiting Lecturer, Saravathi Kalakam (a private institute for students appearing for the British Chartered Engineer's Examination) 17, Fussels Lane, Wellawatte, Sri Lanka.

1974-1975: Organizer and Principal Lecturer, Ananda Vidiyalaya (a private institute for students appearing for the British Chartered Engineers Examination) 18/1 George E. De Silva Mawaththa, Kandy, Sri Lanka.

DOCTORAL STUDENTS - completed

1. K. Sriram, A Study of Multiplexing Schemes for Voice and Data (Co-chaired with Pramod K. Varshney), December 1983.
2. M. A. Jafari, Modelling of Automatic Transfer Lines with Scrapping, August 1984.
3. S. S. Hwang, Models for Production Planning in Flexible Manufacturing Systems, June 1986.
4. P. Y. Huang, Job Class Decomposition of Multi-Class Queueing Systems, December 1987.
5. C. Samaratinga, Adaptive Routing and Control in Integrated Circuit Fabrication Systems, June 1989.
6. R. L. Salstrom, Optimization of Manufacturing Systems, June 1989.
7. L. E. Meester, Contributions to the Theory and Applications of Stochastic Convexity, November 1990.
8. C. Wu, Analysis of Discrete Queueing Network Models of Communication Systems, December 1991.
9. S. Seshadri, Stochastic Models of Semiconductor Fabs (Co-chaired with Roger Glassey), August 1993.
10. W. Jang, Markovian Quality Control for Multiple Processes under Capacity Constraints, August 1997.
11. W. Kuo, Adaptive Sampling Strategies for Semiconductor Manufacturing, December 1997.

12. T. Sloan, Scheduling Semiconductor Wafer Manufacturing using In-Line Equipment Condition and Yield Information, May 1988.
13. S. J. Lee, Inspection Tool Selection and Capacity Allocation for In Line Process Control, May 1999.
14. J. Mo, Fair Congestion Control Protocols for the Internet (Co-chaired with Jean Walrand), May 1999.
15. C. Beam, Auctioning and Bidding in the Electronic Commerce: The Online Auction (Co-chaired with Arie Segev), May 1999.
16. N. Takezawa, Optimal Control of Service Times for Multi-Class Queues, July 1999.
17. R. Nassongkhla, Pricing and Yield Management for an Effective Fabless-Foundry Partnership, October 1999.
18. A. Ross, Queueing Systems with Daily Cycles and Stochastic Demand with Uncertain Parameters, 2001
19. E. Junquiera, Customer Forecasts and Supplier Commitment and Production Decisions in Supply Contract Relationships , (Co-chaired with Candice Yano), 2002
20. M. Celikbas, The Effects of Demand Uncertainty on Equilibrium of Price and Quantities in a Competitive Market, (Co-chaired with Miguel Vilalobas), 2002
21. D. Gudmundsson, Inspection and Metrology Capacity Allocation in the Full Production and Ramp Phases of Semiconductor Manufacturing, Fall 2005
22. A. Jain, Topics in Model Uncertainty and Learning, Spring 2010 (Co-chaired with Andrew Lim)
23. S-P. Kim, Stochastic Inventory Control in Closed-loop Hybrid System with Remanufacturing, Summer 2012 (Co-Chair with Seokcheon Lee)
24. V. Ramamurthy, Online, Data Driven Learning Approaches in Operations Management Problems, Summer 2012 (Co-chair with Max Shen)
25. N. Zhang, Essays on Nudging Customers' Behaviors: Evidence from Online Grocery Shopping and Crowdfunding, Summer 2015 (co-chair with Karthik Kannan)

Member of 70 **DOCTORAL COMMITTEES**

DOCTORAL COMMITTEE outside reader or external examiner

1. R. Nurani, Role of In-Line Process Monitoring and Control in Wafer Fab Management, Graduate School of Industrial Administration, Carnegie Mellon University, Pittsburg, PA. (December 1995)
2. T. Wong, Contributions to the Theory of Stochastic Orders, Program in Applied Mathematics, University of Arizona, Tucson, AZ. (May 1996)
3. H. C. Xia, Dynamic Scheduling of Queueing Systems with Applications to Computer Networks and Flexible Manufacturing, Stanford University, Palo Alto, CA. (December 1998)
4. M. A. Begen, Appointment Scheduling with Discrete Random Durations and Applications, The University of British Columbia, Vancouver, BC, Canada (March 2010)
5. Raha Akhavan-Tabatabaei, A Markov Chain Framework for Approximation of Cycle Time in Semiconductor Manufacturing Toolsets, North Carolina State University, NC (November 2010).
6. A. K. Misra, Stochastic Comparisons of Some Models in Reliability Theory, Indian Institute of Technology, Kanpur (March 2012)

7. C. D. Senanayake, Analytical Methods for the Performance Evaluation and Improvement of Multiple Part-Type Manufacturing Systems, National University of Singapore (May 2012)

BOARD MEMBERSHIP OF COMPANIES

2006- to date: Member of the Technical Advisory Board, Intermolecular

2009- to date: Member of the Technical Advisory Board, ReelSolar

PRINCIPAL CONSULTANT

2006- to date: Sensor Analytics

CONSULTING

1982: Syracuse Research Incorporate

1984-1986: Bell Canada

1989-1992: Bell Communications Research

1992: Safeway, Inc.

1993: Southern Pacific Railways

1993-2009: Ken Leavy Associates, Instrumentations / Tencor (through KLA-Tencor worked on joint development projects with AMD, IBM, Intel, LSI, Motorola, TI, Toshiba, Fujitsu, TSMC and UMC)

1994: NTT, Japan

1994: IBM

2005- 2007: Applied Materials

2006-2009: Intermolecular

MEMBERSHIPS IN SCIENTIFIC ORGANIZATIONS

1989-present: Production and Operations Management Society (POMS)

1994-present: Institute for Operations Research and Management Science (INFORMS)

2009-2012: Institute for Electrical and Electronic Engineers (IEEE)

1978-1994: The Institute of Management Sciences (TIMS)

1978-1994: Operations Research Society of America (ORSA)

1978-1979: Canadian Operational Research Society (CORS)

1980-1983: Institute of Industrial Engineers (IIE)

1980-1984: Association for Computing Machinery (ACM)

1980-1984: Institute for Electrical and Electronic Engineers (IEEE)

1981-1991: Sigma Xi

1982-1984: Operations Research Society of Japan

1992-1993: Society for Industrial and Applied Mathematics (SIAM)

PROFESSIONAL ACTIVITIES

PRIZE COMMITTEES

1990: Co-chair, Best paper award committee for the first annual meeting of the Production and Operations Management Society

1990-1991: Member, ORSA Lanchester Prize Committee.

1991-1992: Chairman, ORSA Lanchester Prize Committee.

1992-1993: Member, Applied Probability Group's Erlang Prize Committee.
1995-1996: Member, Applied Probability Group's Erlang Prize Committee.
1996-1997: Member, Applied Probability Group's Erlang Prize Committee.
2003-2004: Member, POM's Wickham Skinner Early Career Achievement Award Committee.
2004-2005: Member, POM's Wickham Skinner Early Career Achievement Award Committee.

COMMITTEES - PROFESSIONAL SOCIETIES

1986-1989: Member, Council of the ORSA/TIMS Group on Applied Probability
1989-1991: Member, Board of Directors, Production and Operations Management Society
1990-1991: Vice Chairman, ORSA/TIMS Group on Applied Probability
1991-1992: Chairman, ORSA/TIMS Group on Applied Probability
1992-1995: Member, Council of the ORSA/TIMS Group on Applied Probability

ASSOCIATE EDITOR

1986-1999: *Operations Research*
1988-1989: *Annals of Operations Research* (special volume 1989)
1988-1995: *International Journal of Flexible Manufacturing Systems*
1988-1999: *Operations Research Letters*
1990-2000: *Queueing Systems: Theory and Applications*
1991-1995: *OPSEARCH*
1993-1995: *Journal of Discrete Event Dynamic Systems*
1993-2013: *Probability in the Engineering and Informational Sciences*

AREA EDITOR

1992-1995: *Journal of the Production and Operations Management Society*
1999-2001: *Operations Research Letters*

SPECIAL EDITOR

2006- to date: *Journal of the Production and Operations Management Society*

EDITOR

2006- 2009: *Journal of Flexible Services and Manufacturing* (Co-Editor)

EDITORIAL BOARD

1997-2005 *IIE Transactions on Design and Manufacturing*

ADVISORY BOARD

1997-2003: *Journal of the Production and Operations Management Society*
2004- to date: *IEEE Transactions on Automation Science and Engineering*
2005- to date: *Asia Pacific Journal on Operations Research*

REFEREE

(i) Papers: Refereed over 400 technical papers for 70 journals: and for several conference proceedings and Proposals for AFOSR, NSF, ARO-National Research Council.

CONFERENCE ORGANIZING COMMITTEES

1985-1986: Member, Organizing Committee, Second ORSA/TIMS Special Interest Conference on Flexible Manufacturing Systems, Ann Arbor, MI, August 13-15, 1986.

1987-1988: Organizer, Applied Probability Cluster Sessions, ORSA/TIMS Joint National Meeting, Denver, CO, October 24-26, 1988.

1989-1990: Co-chair, Organizing Committee, SIAM Special Interest Meeting on Applied Probability, New Orleans, LA, March 5-7, 1990.

1990-1991: Co-chair, ORSA/TIMS Special Interest Conference on Applied Probability, Monterey, CA, January 11-13, 1991.

1990-1991: Organizer, Multi-echelon Inventory Systems Conference, University of California at Berkeley, CA, June 1991.

1991-1992: Co-chair, Program Committee, ORSA/TIMS Joint National Meeting, San Francisco, CA, 1992.

1992-1993: Member, Organizing Committee, ORSA/TIMS Special Interest Conference on Applied Probability, Paris, France, 1993.

1993-1994: Member, Organizing Committee, International Conference on Stochastic Modeling, Delhi, India, 1994.

1998: Chair and Organizer of Contributed Paper Sessions, 15th Annual Quality and Productivity Research Conference, Santa Rosa, CA, 1998.

2007: Tutorial Chair for the Third annual IEEE Conference on Automation Science and Engineering, Scottsdale, AZ, September 22-25, 2007

2012: Member, Organizing Committee, INFORMS International, Beijing, China, June 24-27, 2012

2014: Member, Organizing Committee, Conference of the Chinese Scholars Association for Management Science and Engineering, Hohhot, Inner Mongolia, China, June 26-28, 2014.

2015: General Co-Chair, POMS 26th Annual Conference Planning Committee, Washington, DC, May 8-11, 2015

2015: Co-Chair, Organizing Committee, The 7th International Workshop on Behavioral Operations Management, Tianjin, China, December 19-20, 2015.

ORGANIZED AND/OR CHAIRED CONFERENCE SESSIONS

Session #TC4: Queueing Models, at the ORSA/TIMS Joint National Meeting, Orlando, November 7-9, 1983.

Session #WB9: Reliability, at the ORSA/TIMS Joint National Meeting, Orlando, November 7-9, 1983.

Session #WA7: Stochastic Models of Job and Flow Shops, at the ORSA/TIMS Joint National

Meeting, San Francisco, May 14-16, 1984.

Session #WA26: Applied Probability, at the ORSA/TIMS Joint National Meeting, Dallas, November 26-28, 1984.

Session #TB5: Stochastic Models of Production Systems, at the TIMS/ORSA Joint National Meeting, Boston, April 29 - May 1, 1985.

Session #MA14: Structural Properties of Stochastic Systems, at the TIMS/ORSA Joint National Meeting, Los Angeles, CA, April 14-16, 1986.

Session #WC07: Combinatorial Optimization III, at the TIMS/ORSA Joint National Meeting, Los Angeles, CA, April 14-16, 1986.

Session #IX: Production Planning I, at the 2nd ORSA/TIMS Special Interest Conference on Flexible Manufacturing System, Ann Arbor, MI, August 13-15, 1986.

Session #XIII: Production Planning III, at the 2nd ORSA/TIMS Special Interest Conference on Flexible Manufacturing System, Ann Arbor, MI, August 13-15, 1986.

Session #MC15: Reliability Modelling, at the ORSA/TIMS Joint National Meeting, Miami Beach, FL, October 27-29, 1986.

Session: Performance Evaluation of Computer / Production Systems, at the Eleventh IFORS International Conference on Operations Research, Buenos Aires, Argentina, August 10-14, 1987.

Session #TC03: Design and Control of Stochastic Systems, at the TIMS/ORSA Joint National Meeting, Washington, D.C., April 25-27, 1988.

Session #TD06: Queueing Theory and Teletraffic Applications, at the TIMS XXIX International Meeting, Osaka, Japan, July 23-26, 1989.

Minisymposium 5: Theory and Applications of Stochastic Ordering and Convexity, at the SIAM Conference on Applied Probability in Science and Engineering, New Orleans, LA, March 5-7, 1990.

Session #MA7: Queueing Network Models of Manufacturing Systems, at the ORSA- /TIMS Joint National Meeting, Philadelphia, PA, October 29-31, 1990.

Session C: Applications of Inequalities I, at the AMS-IMS-SIAM Joint Summer Research Conference, University of Washington, Seattle, WA, June 22-August 2, 1991.

Session #MA 28: Analysis and Control of Queueing Networks, at the ORSA/TIMS Joint National Meeting, Anaheim, CA, November 3-6, 1991.

Special Session on Applied Probability 1, at the 870th meeting of the AMS, Santa Barbara, CA, November 9-10, 1991.

Session # TE05: Contracts for coordinating Supply Chains, at the INFORMS National Meeting, Seattle, WA, 1998.

PANEL DISCUSSIONS, TUTORIALS AND KEYNOTE ADDRESSES IN CONFERENCES

1. Hybrid Simulation/Analytic Models and Modelling of Dynamic Job Shops, invited panelist at the 1982 Winter Simulation Conference, San Diego, CA, December 6-8, 1982.

2. Analytic Representation of Simulation, invited panelist at the 1984 Winter Simulation Conference, Dallas, November 28-30, 1984.

3. What Type of Models: Analytic, Simulation, or Hybrid Simulation/Analytic, invited panelist at the 1984 Winter Simulation Conference, Dallas, Nov. 28-30, 1984.

4. Stochastic Orderings and Applications, Keynote Address at the Applied Probability Special Interest Meeting, Chapel Hill, NC, May 23-25, 1988.

5. A Critical Appraisal of the Management of Waiting, invited panelist at the ORSA- /TIMS Joint National Meeting, Nashville, TN, May 12-15, 1991.

6. The PAC System: A General Approach for Coordinating Multiple Cell Manufacturing Systems, Tutorial given at the ORSA/TIMS Joint National Meeting, Anaheim, CA, November 3-6, 1991.
7. Queueing Networks with Gated Service, Plenary Address at the Second ORSA Telecommunications Conference, Boca Raton, FL, March 9-11, 1992.
8. Stochastic Ordering, Theory of Stochastic Functions and Applications, Tutorial given at the TIMS/ORSA Joint National Meeting, Orlando, FL, April 26-29, 1992.
9. New Models and Approaches for Yield Management and Learning in Semiconductor Manufacturing, Tutorial given (jointly with R. Akella) at the INFORMS National Meeting, Washington DC, May 5-8, 1996.
10. Automated defect Classification, Invited panelist at the KLA-Tencor ADC Best Practices Workshop, San Francisco, CA, July 14, 1999.
11. Incorporating Model Uncertainty and Learning in Management Science, Plenary Address given at the International Conference on Management Science Applications, Chengdu, China, June 20-22, 2005.
12. Stochastic Dynamic Optimization with Model Uncertainty and Learning, Tutorial given (jointly with A. Lim and T. Watewai) at the INFORMS National Meeting, San Francisco, CA, November 13-16, 2005.
13. Model Uncertainty, Robust Optimization and Learning (jointly with Lim, A., J. G. Shanthikumar and Z-J. M. Shen) at the INFORMS National Meeting, Pittsburgh, PA, November 05-08, 2006.
14. Queueing Systems Modelling with Operational Statistics, Keynote Talk at the EURANDOM workshop on Stochastic Models of Manufacturing Systems, Eindhoven, The Netherlands, June 24-25, 2010.
15. Model Uncertainty, Robust Optimization and Learning, Invited Tutorial at the INFORMS International, Beijing, China, June 24-27, 2012.
16. Risk Management in Supply Chains, Invited Tutorial at the Mostly OM Conference, Beijing, China, May 30-31, 2013.
17. Analytics of Information in Operations Management, Invited Tutorial at the Conference of the Chinese Scholars Association for Management Science and Engineering, Hohhot, Inner Mongolia, China, June 26-28, 2014.
18. Analytics of Information in Operations Management, Invited Keynote Address at the 2014 IEEE international conference on automation and logistics, Hulun-Buir, Inner Mongolia, China, June 30-31, 2014.
19. Frontier Analytics for Practical Production and Operations Management, Panelist at the 26th POMS Conference, Washington, DC, May 8-11, 2015.
20. Prescriptive Empirical Operations Management, Panelist at the 26th POMS Conference, Washington, DC, May 8-11, 2015.
21. Prescriptive Empirical Modeling and Frontier Analytics for Operations Management, Keynote Address, 3rd ISB-POMS Workshop, Hyderabad, India, December 21-22, 2015.

193 PAPERS CONTRIBUTED TO CONFERENCES (with no proceedings)

108 INVITED TALKS AT UNIVERSITIES AND RESEARCH INSTITUTES

EXTRACURRICULAR INTERESTS AND ACTIVITIES

Photography, travelling, fishing, tennis, music, electrical Repairs and building personal computers. Social/Seminar Organizer, Industrial Engineering Graduate Students Association, 1976-1977. Captain, Jaffna Central College Athletic team, 1968.

PUBLICATIONS

I. REFEREED PUBLICATIONS

A. Archival Journals

- [1] Shanthikumar, J.G., A Comment on the Paper: An Optimal Solution for Scheduling of Printing and Binding, *INFOR, Canadian Journal of Operational Research and Information Processing*, 14, (October 1976), 288-291.
- [2] Shanthikumar, J.G., On a Single Server Queue with State Dependent Service, *Naval Research Logistics Quarterly*, 26, (June 1979), 305-309.
- [3] Shanthikumar, J.G., Effects of Opportune Maintenance in a Single Machine Job Shop, *Engineer, Quarterly Journal of the Institute of Engineers, Sri Lanka*, 7, (December 1979), 22-25.
- [4] Shanthikumar, J.G., Some Analyses on the Control of Queues Using Level Crossings of Regenerative Processes, *Journal of Applied Probability*, 17, (September 1980), 814-821.
- [5] Shanthikumar, J.G., On the Production Capacity of Automatic Transfer Lines with Unlimited Buffer Space, *AIIE Transactions*, 12, (September 1980), 273-274.
- [6] Shanthikumar, J.G. and J.A. Buzacott, On the Approximations to the Single Server Queue, *International Journal of Production Research*, 19, (November/December 1980), 761-773.
- [7] Buzacott, J.A. and J.G. Shanthikumar, Models for Understanding Flexible Manufacturing Systems, *AIIE Transactions*, 14, (December 1980), 339-350.
- [8] Shanthikumar, J.G., Analysis of the Control of Queues with Shortest Processing Time Service Discipline, *Journal of the Operations Research Society of Japan*, 23, (December 1980), 341-352.
- [9] Shanthikumar, J.G., Comments on the Buffer Behavior in Computer Communications Systems, *IEEE Transactions on Computers*, C30, (February 1981), 157.
- [10] Shanthikumar, J.G. and J.A. Buzacott, Open Queueing Network Models of Dynamic Job Shops, *International Journal of Production Research*, 19, (May/June 1981), 255-266.
- [11] Shanthikumar, J.G., Optimal Control of an M/G/1 Priority Queue Via N-Control, *American Journal of Mathematical and Management Sciences*, 1, (September 1981), 191-212.
- [12] Shanthikumar, J.G., A General Software Reliability Model for Performance Prediction, *Microelectronics and Reliability*, 21, (September/October 1981), 671-682.
- [13] Shanthikumar, J.G., M/G/1 Queue with Scheduling within Generations and Removable Server, *Operations Research*, 29, (September/October 1981), 1010-1018.

- [14] Shanthikumar, J.G., On the Buffer Behavior with Poisson Arrivals, Priority Service, and Random Server Interruptions, *IEEE Transactions on Computers*, *C30*, (October 1981), 781-786.
- [15] Shanthikumar, J.G. and R.G. Sargent, An Algorithmic Solution for a Queueing Model of a Computer System with Interactive and Batch Jobs, *Performance Evaluation, An International Journal*, *1*, (December 1981), 334-357.
- [16] Shanthikumar, J.G., On Level Crossing Analysis of Queues, *The Australian Journal of Statistics*, *23*, (December 1981), 337-342.
- [17] Shanthikumar, J.G., On the Use of Decomposition Approach in a Single Machine Scheduling Problem, *Journal of the Operations Research Society of Japan*, *25*, (March 1982), 29-47.
- [18] Shanthikumar, J.G., On Reducing Time Spent in M/G/1 Systems, *European Journal of Operational Research*, *9*, (March 1982), 286-294.
- [19] Shanthikumar, J.G., A Recursive Algorithm to Generate Joint Probability Distribution of Arrivals from Exponential Sources During a Random Time Interval, *Information Processing Letters*, *14*, (July 1982), 214-217.
- [20] Shanthikumar, J.G., Level Crossing Analysis of Some Variants of GI/M/1 Queues, *OPSEARCH*, *19*, (September 1982), 148-159.
- [21] Shanthikumar, J.G., Recursive Algorithm to Evaluate the Reliability of a Consecutive-k-out-of-n:F System, *IEEE Transactions on Reliability*, *R31*, (December 1982), 442-443.
- [22] Sargent, R.G. and J.G. Shanthikumar, Cyclic Regenerative Method of Simulation, *Operations Research Letters*, *1*, (December 1982), 222-229.
- [23] Shanthikumar, J.G., Analysis of a Single Server Queue with Time- and Operation-Dependent Server Failures, *Advances in Management Studies*, *1*, (December 1982), 339-359.
- [24] Shanthikumar, J.G. and M.J. Chandra, Application of Level Crossing Analysis to Discrete State Processes in Queueing Systems, *Naval Research Logistics Quarterly*, *29*, (December 1982), 593-608.
- [25] Sarker, B.R. and J.G. Shanthikumar, A Generalized Approach for Serial or Parallel Line Balancing, *International Journal of Production Research*, *21*, (January/February 1983), 109-113.
- [26] Shanthikumar, J.G. and S. Tufekci, Application of a Software Reliability Model to Decide Software Release Time, *Microelectronics and Reliability*, *23*, (March 1983), 41-59.
- [27] Shanthikumar, J.G., Bounds for the Expected Number of Hospital Bed Occupancy, *Engineer, Journal of the Institution of Engineers, Sri Lanka*, *1*, (June 1983), 20-23.
- [28] Shanthikumar, J.G., Scheduling n Jobs on One Machine to Minimize Maximum Tardiness with Minimum Number of Tardy Jobs, *Computers and Operations Research*, *10*, (June 1983), 255-266.
- [29] Shanthikumar, J.G., Bounds and an Approximation for Single Server Queues, *Journal of the Operations Research Society of Japan*, *26*, (June 1983), 118-134.
- [30] Chandra, M.J. and J.G. Shanthikumar, On a Machine Interference Problem with Several Types of Machines Attended by a Single Repairman, *International Journal of Production Research*, *21*, (July/August 1983), 529-541.

- [31] Shanthikumar, J.G. and C.C. Tien, An Algorithmic Solution to Two-Stage Transfer Lines with Possible Scrapping of Units, *Management Science*, 29, (September 1983), 1069-1086.
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