

## VITA

Suresh Chand

### Position

Louis A. Weil, Jr. Chair and Professor of Operations Management  
Associate Dean of Graduate Programs (2013-16)  
Academic Director of Weekend and one-year MBA programs (2013-16)  
Krannert School of Management, Purdue University, West Lafayette, Indiana 47907  
(765) 494-4530, suresh@purdue.edu

### Personal Data

Home Address: 3420 Dubois Street, West Lafayette, Indiana 47906

Marital Status: Married

### Education

1979	Ph.D. (Industrial Administration) Carnegie-Mellon University
1976	M. S. (Industrial Engineering) University of Texas – Arlington
1974	M. Tech. (Mechanical Engineering) Indian Institute of Technology – Kanpur
1972	B. Tech. (Mechanical Engineering) Indian Institute of Technology – Kanpur

### Employment

2013-16	Academic Director, one-year MBA Program
2013-16	Academic Director, Weekend MBA Program
2013-16	Associate Dean of Graduate Programs
2010-	Louis A. Weil, Jr. Chair of Management
1994-	Professor of Operations Management Purdue University
1994-95	Visiting Professor of Management Carnegie-Mellon University
1984-94	Associate Professor of Management Purdue University

1984-85	Visiting Associate Professor of Management University of Toronto
1979-84	Assistant Professor of Management Purdue University
1978-79	Teaching Assistant Carnegie-Mellon University
1974-75	Research Associate Indian Institute of Management- Ahmedabad

### Research Interests

Production planning for multi-period production inventory problems

Supply Chain Management

Operations Management Applications in Healthcare Delivery

Analysis and Management of Process Variability and process flexibility

### Teaching Interests

Core courses in Operations Management

Process Analysis and Improvement

Supply Chain Management

Service Operations Management

Courses Taught: I have taught a *variety* of OM courses at all levels in our programs.

Undergraduate: MGMT 361 (Core), 462 (Elective in Planning and Control), 490 (Supply Chain Management Elective – first supply chain elective taught at Krannert)

Regular MBA: MGMT 660 and 664(core), 564(service elective), 560 (Process elective), 661(Projects), 663(technologies and process elective), 690 (Healthcare Operations)

Executives: MGMT 660 (core) weekend MBA, EMBA, IMM, One-yr MBA, and MSBAIM.

Online MBA/MS: MGMT 660 (Core)

GISMA: OM core course for nine years

Doctoral Program: OM Ph.D. seminars

## Ph. D. Students Supervised

Hans Schneeberger: "Job Shop Scheduling in Pull-Type Production Environments," 1984, joined School of Business at University of Michigan.

Doug Blocher: "Single Machine Changeover Scheduling," 1992, joined School of Business at Indiana University.

Timothy McClurg: "Machine Replacement with Capacity Expansion and Learning," 1993, joined the School of Business at Georgia Southern University.

Rodney Traub: "Single Machine Scheduling with Dynamic Arrivals," 1994, joined School of Business at University of Iowa.

Theresa Lo: "Production Control with Uncertain Machine Breakdowns," 1994, joined National Taiwan University.

Laura Swanson: "Managing Maintenance for Equipment Performance," 1995, joined Southern Illinois University.

Sunantha Teyarachakul: "Effect of Learning and Forgetting in Manufacturing," July 2003, joined Minnesota State University.

Jian Li: "Inventory Models with Multiple Order Opportunities." August 2005, joined Boeing Center for Technology, Information and Manufacturing, Washington University in St. Louis.

John Norris: "Essays on Operational Efficiency in Service Operations: Applications in Healthcare." August 2007, joined a private firm.

## Publications:

54. "Matching Electricity Supply with Demand: Integrating Renewable Energy Systems into the U.S. Power Grid." (With Boregowda, S. C) *International Journal of Strategic Energy and Environmental Planning*, 4(6), 18-38, November 2022.

53. "Structural Properties of the lost sale problem with fractional lead times," (with Xu, Kim, Bisi and Dada), *Operations Research Letters*, September 2019.

52. "Production Planning with multiple production lines: Forward algorithm and insights on process design for volume flexibility," *Naval Research Logistics*, Vol. 65, December 2018, pp 535-549.

51. "Lot Sizing with Learning and Forgetting in Setups: Analytical Results and Insights" (with Teyarachakul and Tzur), *Naval Research Logistics*, Vol. 63, March 2016, pp 93-108.

50. "A Periodic Review Inventory Model with Two Delivery Modes, Fractional Lead-Times, and Age-and-Period-Dependent Backlogging Costs" (with Jian Li and Yanyi Xu), *International Journal of Production Economics*, Vol. 173, March 2016, pp 199-216.

49. Norris, J, C. Kumar, S. Chand, H. Moskowitz, S. Shade, and D. Willis, "An empirical investigation into factors affecting patient cancellations and no-shows at outpatient clinics," *Decision Support Systems* 57(2014), pp. 428-443.
48. Chand, Suresh and Suresh Sethi, "Multi-period Lot-sizing with Stationary Demand: Extension to Forecast Horizons". Handbook of EOQ Inventory Problems: Stochastic and Deterministic Models and Applications (Choi ed.), Springer, New York, 2013.
47. Pilotte M., S. Chand, V. Kovaichelvan, and A. Iyer, "Global Experiential Projects with a Manufacturer in India: Insights from Five Years of Experience," *Inform Transactions of Education*, Vol. 13, No. 1, September 2012, pp. 31-43 (online)
46. Teyarachakul, S., Chand, S. and J. Ward, "Effect of Learning and Forgetting on Batch Sizes," *Production and Operations Management*, (2011) Vol. 20, 116-128.
45. Chand, S., J. Norris, H. Moskowitz, S. Shade, and D. Willis, "Improving Patient Flow at an Outpatient Clinic: Study of Sources of Variability and Improvement Factors," *Healthcare Management Science*, (2009) 12: 325-340.
44. Li, Jian, S Chand, M dada, and S. Mehta, "Managing Inventory over a Short Season: Models with Two Procurement Opportunities," (2009) *M&SOM*, Vol. 11, 174-184.
43. Teyarachakul, S., Chand, S. and J. Ward, "Batch sizing under learning and forgetting: Steady state characteristics for the constant demand case," *Operations Research Letters* 36 (2008) 589-593.
42. Yang W. H. and S. Chand, "Learning and forgetting effects on a group scheduling problem," *European Journal of Operational Research* 187 (2008) 1033-1044.
41. Chand, S., Hsu, V., Sethi, S. and V. Deshpande, "A Dynamic Lot Size Problem with Multiple Customers: Customer-Specific Shipping and Backlogging Costs," *IIE Transactions* 39 (2007), 1059-1069.
40. Teyarachakul, S., Chand, S. and J. Teng, "Estimating the Limits for Statistical Process Control Charts: A Direct Method Improving on Bootstrap," *European Journal of Operational Research* 178 (2007) 472-481.
39. Asken, D., Altinkemer, K. and S. Chand, "The Single-Item lot-sizing problem with immediate lost sales," *European Journal of Operational Research* 147 (2003), 558-566.
38. McClure, T. and S. Chand, "A Parallel Machine Replacement Model," *Naval Research Logistics*, Vol. 49 (2002), pp 275-287.
37. Rekhi, I., S. Chand, and H. Moskowitz, "A Note on Optimal Allocation of Work in Stochastic Assembly Lines," *European Journal of Operational Research* 137 (2002), 387-393.
36. Chand S., V. Hsu and S. Sethi, "Forecast, Solution and Rolling Horizons in Operations Management Problems: A Classified Bibliography," *M&SOM*, vol. 4, No. 1, 2002, pp. 25-43.

35. Chand, S. and T. Zeng, "A Comparison of U Line and Straight Line Performances Under Stochastic Times," *M&SOM*, Vol 3, Number 2, 2001, pp 138-150.
34. Chand, S., T. McClurg and J. Ward, "A Model for Parallel Machine Replacement with Capacity Expansion," *European Journal of Operational Research*, Vol. 121, 2000, pp. 519-531.
33. Blocher, D., S. Chand and K. Sengupta, "The Changeover Scheduling Problem with Time and Cost Considerations: Analytical Results and a Forward Algorithm," *Operations Research*, Vol. 47, No. 4, July-August 1999, pp. 559-569.
32. Chand, S., R. Traub, and R. Uzsoy, "Rolling Horizon Procedures for the Single Machine Dynamic Scheduling Problem," Vol. 70, 1997, pp. 115-125, *Annals of Operations Research*, Special Volume on Scheduling: Theory and Applications.
31. Chand, S, H. Moskowitz, A. Novak, I. Rekhi, and G. Sorger, "Capacity Allocation for Dynamic Process Improvement with Quality and Demand Considerations," *Operations Research*, (1996), 24, 6, 964-975.
30. Blocher, D. and S. Chand, "An Improved Lower Bound for Changeover Scheduling Problem" *IIE Transactions* (1996) 28, 901-909.
29. Chand, S., R. Traub, and R. Uzsoy, "Single Machine Scheduling with Dynamic Arrivals: Decomposition Results and an Improved Algorithm," *Naval Research Logistics* (1996), 43, 709-719.
28. Blocher, D. and S. Chand, "A Forward Branch-and-Search Algorithm and Forecast Horizon Results for the Changeover Scheduling Problem", *European Journal of Operational Research* (1996), 91, 456-470.
27. Chand, S., R. Traub, and R. Uzsoy, "An Iterative Heuristic for the Single Machine Dynamic Total Completion Time Scheduling Problem", *Computers & OR* (1996), 23, 641-651.
26. Chand, S., J. Ward and Z. Kevin Weng, "A Parts Selection Model with One-way Substitution", *European Journal of Operational Research* 73(1994), 65-69.
25. Chand, S., D. Chhajed, and R. Traub, "A Single-Machine Scheduling Model with Fixed-Interval Deliveries," *Production and Operations Management* Vol. 3, No. 4 (1994), 296-307.
24. Chand, S., T. McClurg and J. Ward, "A Single Machine Replacement Model with Learning", *Naval Research Logistics*, Vol. 40, 175-192, 1993.
23. Voros, J. and S. Chand, "Improved Lot-Sizing Heuristics for Multi-Stage Inventory Models with Backlogging", *International Journal of Production Economics*, Vol. 28 (1992), 283-288.
22. Chand, S., S. Sethi and G. Sorger, "Existence of Decision/Forecast Horizons in the Discounted Dynamic Lot Size Model", *Management Science*, Vol. 38, 1034-48, 1992.
21. Chand, S. and D. Chhajed, "A Single-Machine Model for Determination of Optimal Due Dates and Sequence", *Operations Research*, Vol. 40, 596-602, 1992.

20. Chand, S. and J. Voros, "Setup Cost Stability Region for the Dynamic Lot Sizing Problem with Backlogging", *European Journal of Operational Research*, Vol 58, 68-77, 1992.
19. Blocher, D. and S. Chand, "Resources Planning for Aggregate Production", Handbook of Industrial Engineering: Second Edition (Edited by G. Salvendy), 1992.
18. Blocher, D. and S. Chand, "Scheduling of Parallel Processors: A Posterior Bound on LPT Sequencing and a Two-step Algorithm", *Naval Research Logistics*, Vol. 38, 273-287, 1991.
17. Chand, S, S. Sethi and J. M. Proth, "Existence of Forecast Horizons in Undiscounted Discrete-Time Lot Size Models", *Operations Research*, Vol. 38, No. 5, 884-892, 1990.
16. Chand, S. and S. Sethi, "A Dynamic Lot Sizing Model with Learning in Setups", *Operations Research*, Vol. 38, No. 4, 644-655, 1990.
15. Chand, S., "Lot Sizes and Setup Frequency with Learning in Setups and Process Quality", *European Journal of Operational Research*, Vol. 42, 1989.
14. Chand, S., "Decision/Forecast Horizon Results for a Single Facility Dynamic Location/Relocation Problem", *Operations Research Letters*, Vol. 7, No. 5, 1988.
13. Chand, S. and H. Schneeberger, "Single Machine Scheduling to Minimize Weighted Earliness Subject to no Tardy Jobs", *European Journal of Operational Research*, Vol. 34, 1988.
12. Chand, S. and J. Ward, "A Note on Economic Order Quantity under Conditions of Permissible Delay in Payments", *Journal of Operational Research Society*, Vol. 38, No. 1, 1987.
11. Chand, S. and H. Schneeberger, "A Note on the Single Machine Scheduling Problem with Minimum Weighted Completion Time and the Maximum Allowable Tardiness", *Naval Research Logistics Quarterly*, Vol. 33, 1986.
10. Chand, S. and T. Morton, "Minimal Forecast Horizon Procedures for Dynamic Lot Size Models", *Naval Research Logistics Quarterly*, Vol. 33, No. 1, 1986.
9. Chand, S. and K. Tang, "A Comparison of Average and Discounted Cost Models for the Dynamic Lot Size Inventory Problem", *European Journal of Operational Research*, Vol. 22, 1985.
8. Chand, S. and S. Sethi, "Finite Production Rate Inventory Model with First - and Second - Shift Setups", *Naval Research Logistics Quarterly*, Vol. 30, No. 3, 1983.
7. Chand, S., "Rolling Horizon Procedures for the Facilities-in-Series Inventory Model with Nested Schedules", *Management Science*, Vol.29, No. 2, 1983.
6. Chand, S. and S. Sethi, "Planning Horizon Procedures for Machine Replacement Models with Multiple Replacement Alternatives", *Naval Research Logistics Quarterly*, Vol. 29, No. 3, 1982.
5. Chand, S., "Lot Sizing for Products with Finite Demand Horizon and Periodic Review Inventory Policy", *European Journal of Operational Research*, Vol. 11, 1982.

4. Chand, S. and T. Morton, "A Perfect Planning Horizon Procedure for a Deterministic Cash Balance Problem", *Management Science*, Vol. 28, No. 6, 1982.
3. Chand, S., "A Note on Dynamic Lot Sizing in Rolling Horizon Environments", *Decision Sciences*, Vol. 13, No. 1, 1982.
2. Chand, S. and S. Sethi, "Multiple Finite Production Rate Dynamic Lot Size Inventory Models", *Operations Research*, Vol. 29, No. 5, 1981.
1. Sethi, S. and S. Chand, "Planning Horizon Procedures for Machine Replacement Models", *Management Science*, Vol. 25, No. 2, 1979.

### Book Reviews

"Review of Essentials of Operations Management", Authored by S. E. Barndt and D. W. Caravey, Interfaces, Vol. 14, No. 2, 1984.

"Review of Contemporary Operations Management", Authored by T. M. Cook and R. A. Russell, Interfaces, Vol. 11, No. 6, 1981.

### Presentations

Production Planning with Multiple Production Lines: Forward Algorithm and Insights on Volume Flexibility. Presentation at the 2019 POMS Annual Conference, Washington, D.C., U.S.A. (Presentation made by co-author Sunantha prime)

Finite Production Rate Lot Sizing with Multiple Production Lines: Forward Algorithm and Insights on Volume Flexibility, July 23, 2017, 22<sup>nd</sup> Asia Pacific DSI Seoul Conference (Presentation made by co-author Sunantha prime)

"Variable Cost Finite Production Rate Model", May 2016, POMF Conference, Orlando. [With Sunantha Teyarachakul, Presentation made by co-author.]

Linear Programming and Applications, TVS Motors Company, Hosur, India, May 20, 2015.

Improving Healthcare Operations at Outpatient Clinics: Investigation into factors affecting cancellation/no-show rates and patient flows, Healthcare Brown Bag Seminar, fall 2015

2<sup>nd</sup> Batch of Executive Fellow of Production Management (EFPM) Students Inaugural Speech, Indian Institute of Management, Raipur, June 8, 2014

"Lot Sizing with Learning and Forgetting in Setups: Computational Results and Insights", POM 2012, Chicago.

"Effect of Learning and Forgetting in Setups," POMS 2011 Reno, Nevada

"Learning and Forgetting in Setups: Algorithm, Forecast Horizons and Managerial Insights," DSI 2009 New Orleans and Euro 2009 Germany.

"Improving Patient Flows," 2008 GISMA Alumni Reunion, Munich, Germany.

"Improving Patient Flows at a Medically Underserved Clinic in Indianapolis," Society of Operations Management, 2006, Indiana Institute of Management, Ahmedabad.

"Stochastic Inventory Models with Limited Order Opportunities," POMS 2006 Boston.

"Learning and Forgetting in Setups," POMS 2006 Boston.

"Productivity and Quality Improvement of Patient Flow at a Medically Underserved Clinic in Indianapolis," POM 2005 Chicago.

"Models for Two Order Opportunities in the Newsvendor Problem," POM 2005 Chicago

"Optimal Inventory Policy with Limited Orders Opportunity," INFORMS 2004 Denver

"Effect of Learning and Forgetting on Batch Size Decisions," MSOM Summer 2002, Cornell University.

"Determination of Due Dates," ORSI, Bombay, December 2001

"Lot Sizing with Learning and Forgetting," INFORMS, Miami, Fall 2001

"A Comparison of U-Line and Straight-Line Performances under Stochastic Task Times," University of Texas at Dallas, Fall 2001.

"A Comparison of U-Line and Straight-Line Performances under Stochastic Task Times," University of Science and Technology, Hong Kong, summer 2001.

"Process Analysis." Nirma Institute of Management, Ahmedabad, India, March 2001

"A Comparison of U-Line and Straight-Line Performances under Stochastic Process Times," University of Wisconsin, Fall 1997.

"Teaching Operations Management Core," Indian Institute of Management at Lucknow, India, Summer 1996.

"Teaching Operations Core: Review of Goals, Topics and Teaching Material," POMS, March 1996, Indianapolis (Speaker and session chair).

"An Iterative Heuristic for Single Machine Dynamic Total Completion Time Scheduling Problems," INFORMS, New Orleans 1995 (with R. Traub).

"A Review of Research Topics," The University of Iowa Mid-Western Conference, 1995.

"Single-Machine Scheduling with Dynamic Arrivals," ORSI, Bhuvneshwar, India, December 1993.

"Single-Machine Scheduling with Dynamic Arrivals," Invited Seminar, Indiana University Graduate School of Business, Fall 1993.



"Production Control with Stochastic Machine Breakdowns", Invited paper, Multilevel Inventory Conference, North Western University, June 1992.

"Sequencing in Large Flow shops to Minimize Completion Time", TIMS/ORSA, Anaheim, November 1991.

"Machine Replacement with Learning", TIMS/ORSA, Anaheim, November 1991.

"Stochastic Single-Machine Scheduling to Minimize Expected Number of Tardy Jobs", TIMS/ORSA, Anaheim, November 1991.

"Single-Machine Scheduling with Fixed Delivery Dates", Invited Seminar, University of Illinois at Urbana-Champaign, September 1991.

"Scheduling of Parallel Processors", TIMS/ORSA, Philadelphia, October 1990.

"A Single-Machine Model for Determination of Optimal Due Dates and Sequence", Invited Seminar, Faculty of Management, University of Toronto, September 1990.

"Scheduling of Parallel Processors: A Posterior Bound on LPT Sequencing and a Two-Step Algorithm", Invited Seminar, Faculty of Management, University of Toronto, September 1990.

"Minimum Change-Over Scheduling on a Single Processor", TIMS/ORSA, Las Vegas, May 1990.

"Batching and Scheduling with Common Due Dates", TIMS/ORSA, New York, Oct. 1989.

"Forecast/Decision Horizon in the Discounted Dynamic Lot Size Model", TIMS/ORSA, New York, Oct. 1989.

"Optimality of  $EOQ$ 's Worth +  $EOQ$ 's Worth<sup>2</sup>", TIMS/ORSA, Denver, Oct. 1988.

"Dynamic Lot Sizing with Learning in Setups", TIMS/ORSA, New Orleans, May 1987.

"Minimal Forecast Horizon Procedures", Department of Industrial Engineering, University of Michigan, March 1985.

"Scheduling to Minimize Weighted Earliness", Faculty of Management Studies, University of Toronto, March 1984.

"Rolling Horizon Procedures for a Dynamic Location Problem", TIMS/ORSA, San Francisco, May 1984.

"Principles of Japanese Manufacturing Management", Poddar Institute of Management, India, December 1984.

"Master Production Scheduling: Survey and Analysis", TIMS/ORSA, Chicago, April 1983.

"Single Machine Scheduling", Indian Institute of Management, Ahmedabad, India, December 1983.

"Rolling Horizon Procedures for the Facilities-in-Series Inventory Models with Nested Schedules", Invited paper, Multilevel Inventory Conference, University of Santa Clara, June 1982.

"Rolling Horizon Procedures for the Facilities-in-Series Inventory with Nested Schedules", TIMS/ORSA, Detroit, April 1982.

"Dynamic Lot Sizing in Rolling Horizon Environments", TIMS/ORSA, Toronto, May 1981.

"Dynamic Lot Sizing in Rolling Horizon Environments", Indian Institute of Technology, Kanpur, August 1980.

"Perfect Planning Horizon Procedures for a Dynamic Lot Size Inventory Model", TIMS/ORSA, Washington, D. C., May 1980.

### Editorial Responsibilities for Journals and Service to Profession

Production and Operations Management (2009-15), Associate Editor

INFOR, Canadian Journal of Operational Research and Information Processing (1985-99), Associate Editor

Management Science (1985- 2008), Associate Editor

Production and Operations Management (1992-2003), Area Editor

Manufacturing and Service Operations Management (1999-2004), Senior Editor

Member, NSF Panel

Chair, Teaching the Core Course in POM, Conference on Teaching POM: Visions, Topics, and Pedagogies, Indianapolis, 1996

General Chair, POM 2005 - Chicago (I had overall responsibility for organizing the conference. The conference attracted about 50% more participants than expected based on participation in prior years. A copy of the program is available on request. You can also see [www.poms.org](http://www.poms.org) for information on the society.)

Conference Advisor, POM 2006 - Boston.

### Referee for:

EYE, Decision Sciences, IIE Transactions, Decision Sciences, European Journal of Operational Research, Management Science, Naval Research Logistics, Operations Research, Strategic Management Journal, Mathematics of Operations Research, OPSEARCH, International Journal of Production Economics, Operations Research Letters, NSF Proposals, Best Dissertation Award for POMS, Healthcare Management Science.

### External Reviewer for Promotion/Tenure/Contract Extension/Appointment

UNC Charlotte, University of California- Riverside, Case Western University, Cleveland State University, University of Pittsburgh, University of Michigan-Ann Arbor, University of Notre Dame, Indiana University, University of Connecticut, Ohio State University, George Mason University, University of Illinois at Urbana-Champaign, University of Wisconsin, Rutgers University, University of Michigan-Flint, Carnegie-Mellon University, Penn State University, University of Iowa, University of North Carolina, University of Cincinnati, Georgia Tech, UT Dallas

#### External Reviewer for Operations Management Programs:

Carnegie-Mellon University (They are also ranked in top 5. Other examiners included Paul Zipkin from Duke, Joe Thomas from Cornell and Awi Federgruen from Columbia); invited to review the Operations Management Program at the U of Cincinnati (declined due to scheduling conflicts)

#### Professional Memberships

The Institute for Operations Research and Management Science

#### Service Activities at Purdue University

Chair, MBA Committee (2020-2022)  
Member, MBA Committee (2018-2021)  
TVS Study Abroad  
Management, Policy Committee  
Graduate School Review Committee, Majors in Masters Programs  
Search Committee, Associate Dean of Graduate School  
MBA Review Committee  
IN-Mac Research Thrust Workshop  
Academic Director, One-year MBA Program (2014-16)  
Academic Director, Weekend MBA Program (2013-16)  
Associate Dean of Graduate Programs (2013 - 2016)  
Chair, Krannert STAR Committee (2009-2013)  
Judge: GSCMI case competitions  
Member, Krannert Ph.D. committee  
Member, Undergraduate Review Committee  
Reviewer, PRF Proposals  
Chair, OM Chair Search Committee  
Chair, 2006 Krannert United Way Campaign  
Chair, Undergraduate Review Committee  
Chair, University Grievance Committee (one year)  
Member, OM Ph.D. Review Committee  
Member, Policy Committee  
Member, Grievance Panel  
Coordinator, OM Recruitment, 1995-96, 1992-93  
Area Coordinator for Operations Management (Five years)  
Member, Master's Admissions Committee (Five years)

Member, Master's Program Review Committee  
Member, University Grievance Committee  
Coordinator, Ph.D. Preliminary Examinations in Management  
Coordinator, Undergraduate Operations Management  
Arranged several field trips for GISMA students  
Faculty Advisor, Student Chapter of American Production and Inventory  
Control Society