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EDUCATION

- 2009 Doctor of Philosophy, Management Sciences
University of Waterloo, Canada
- 2003 Master of Technology, Industrial Engineering & Operations Research
Indian Institute of Technology Bombay, India
- 2001 Bachelor of Science, Electrical Engineering (Gold Medal)
Bhagalpur College of Engineering, India

PROFESIONAL EXPERIENCE

- July 15 – Associate Professor
present **Indian Institute of Management Ahmedabad, India**
- Jun 09 – Assistant Professor
Jun 15 **Indian Institute of Management Ahmedabad, India**
- Jan 07 – Lecturer
Dec 08 **Department of Management Sciences, University of Waterloo, Canada**
- Mar 03 – Assistant Systems Engineer
Aug 04 **Tata Consultancy Services Ltd., India**

HONORS & AWARDS

- 2014 Reward for High Quality Research, Indian Institute of Management Ahmedabad, India
- 2011 Reward for High Quality Research, Indian Institute of Management Ahmedabad, India
- 2009 Winner (first prize), Canadian Operational Research Society (CORS) Student Paper Competition for the working paper “Product differentiation & operations strategy in a competitive market.
- 2008 Honorable mention (runner up), Canadian Operational Research Society (CORS) Student Paper Competition for the preprint version of the paper “Product differentiation & operations strategy in a capacitated environment”, European Journal of Operational Research, 210 (3), 716-728.
- 2008 Fraser Award for Outstanding Research, Department of Management Sciences, University of Waterloo
- 2004–07 VP Academic & Provost Award, University of Waterloo
- 2004–07 International Doctoral Student Award, University of Waterloo
- 2006 Best Teaching Assistant Award, Department of Management Sciences, University of Waterloo
- 2005 Graduate Merit Scholarship, University of Waterloo
- 200-02 Graduate Aptitude Test in Engineering Scholarship, Govt. of India

RESEARCH INTERESTS

- Facilities Location with Stochastic Demand and Congestion
- Network Design/Network Flows
- Large-Scale Optimization (Decomposition Techniques)
- Stochastic Optimization
- Game Theoretic Models in Operations/Marketing
- Operations-Marketing Interface: Pricing, Leadtime and Capacity Decisions

JOURNAL PUBLICATIONS

Articles in Refereed Journals

1. N. Vidyarthi, S. Jayaswal. 2014. [Efficient solution of a class of location-allocation problems with stochastic demand and congestion](#). Computers & Operations Research, 48, 20–30.
2. S. Jayaswal and P. Agarwal. 2014. [Balancing u-shaped assembly lines with resource dependent task times: A simulated annealing approach](#). Journal of Manufacturing Systems, 33, 522–534.
3. S. Jayaswal, E.M. Jewkes and S. Ray. 2011. [Product differentiation & operations strategy in a capacitated environment](#). European Journal of Operational Research, 210 (3), 716–728.
4. S. Jayaswal and G.K. Adil. 2004. [Efficient algorithm for cell formation with sequence data, machine replications and alternative process routings](#). International Journal of Production Research, 42 (12) 2419–2433.

Articles under Revision

5. S. Jayaswal and N. Vidyarthi. Capacitated multiple allocation hub location with service level constraints for multiple consignment classes. Transportation Research B. 2nd round of revision.
6. S. Jayaswal and E. M. Jewkes. Price and leadtime differentiation, capacity strategy and market competition. International Journal of Production Research. 1st round of revision.
7. N. Vidyarthi, S. Jayaswal and V.B. Tirumala Chetty. Bandwidth packing problem with queuing delays: modeling and exact solution approach. Journal of Global Optimization. 1st round of revision.

Articles under Review

8. A. Vatsa and S. Jayaswal. A new formulation and Benders' decomposition for multi-period facility location problem with server uncertainty. European Journal of Operational Research.
9. S. Jayaswal, N. Vidyarthi and S. Das. A cutting plane approach to combinatorial bandwidth packing problem with queuing delays. Optimization Letters.
10. S. Jayaswal and N. Vidyarthi. Facility location under service level constraints for heterogeneous patients. Annals of Operations Research.

Working Papers

11. S. Jayaswal. Priority service system optimization under service level constraints. Institute of Management Ahmedabad Working Paper No. 2014-08-04.

Manuscripts under Preparation

12. N. Vidyarthi, S. Jayaswal, S. Das and B. Gendron. An outer-approximation algorithm for multicommodity network design problem with congestion. Target Journal: Annals of Operations Research.

13. A. Vatsa and S. Jayaswal. Benders' decomposition for capacitated multi-period facility location problem with server uncertainty. Target Journal: European Journal of Operational Research.
14. S. Jayaswal, N. Vidyarthi and P. Saini. Lagrangian heuristics for location-allocation problem with stochastic demand and congestion. Target Journal: European Journal of Operational Research/Computers & Operations Research.

Work-in-Progress

15. N. Vidyarthi, S. Jayaswal, S. Das. Demand allocation, capacity selection, and inventory control in assemble-to-order supply chain design. Target Journal: Production & Operations Management/European Journal of Operational Research.
16. S. Jayaswal, N. Vidyarthi, M. Verma. Rail-truck intermodal transportation of hazardous materials: Modeling and Lagrangian Heuristic. Target Journal: Computers & Operations Research.
17. N. Vidyarthi and S. Jayaswal. Stochastic p-robust location-allocation problem with demand uncertainty and congestion. Target Journal: European Journal of Operations Research.
18. S. Jayaswal and S. Rayal. Cross-dock door assignment under congestion: Lagrangian relaxation and cutting plane based solution approach. Target Journal: Computers & Operations Research.
19. N. Vidyarthi, S. Jayaswal and A. Malik. Green merge-in-transit network design. Target Journal: Computers & Operations Research.
20. J. Dalal and S. Jayaswal. Multi objective facility location problems with dispersion. Target Journal: European Journal of Operational Research/Networks.

CONFERENCE PRESENTATIONS & PROCEEDINGS

1. S. Jayaswal, and N. Vidyarthi. Capacitated multiple allocation hub location with service level constraints for multiple consignment classes. 20th conference of IFORS, July 13-18, 2014, Barcelona, Spain.
2. S. Jayaswal, and N. Vidyarthi. Emergency medical service facilities location with service level constraints on patient priority classes. INFORMS Annual Meeting, Oct 06-09, 2013, Minneapolis, Minnesota, USA.
3. S. Jayaswal, E. M. Jewkes and S. Ray. Product differentiation & operations strategy in a capacitated environment. StochMod12, May 30–June 01, 2012, Paris, France.
4. S. Jayaswal, E. M. Jewkes and S. Ray. Product differentiation & operations strategy for price and time sensitive markets. Conference of the Association of Asia-Pacific Operational Research Societies (APORS), Dec 6–9, 2009, Jaipur, India.
5. S. Jayaswal, E. M. Jewkes and S. Ray. Product differentiation & operations strategy in a capacitated environment. POMS Annual Conference, May 1–4, 2009, Orlando, Florida, USA.
6. S. Jayaswal, E. M. Jewkes and S. Ray. Effect of demand and supply interactions on price and delivery time differentiation. INFORMS Annual Meeting, Oct 12–15, 2008, Washington DC, USA.
7. S. Jayaswal, E. M. Jewkes and S. Ray. Price and delivery time differentiation using shared capacity. Canadian Operational Research Society/Optimization Days Joint Conference, May 12–14, 2008. Quebec City, Canada.
8. S. Jayaswal, E. M. Jewkes and S. Ray. Product pricing, lead time and capacity selection in price and time sensitive markets. INFORMS Annual Meeting, Nov 4–7, 2007, Seattle, USA.
9. S. Jayaswal and E. M. Jewkes. Optimization using matrix geometric and cutting plane methods. Optimization Day, April 23, 2007, University of Waterloo, Canada.
10. S. Jayaswal and E. M. Jewkes. Exact performance measures for an assemble-to-order system. CanQueue, Sept. 14–16, 2006, Banff, Canada.

11. S. Jayaswal and E. M. Jewkes. Queueing model for an assemble-to-order manufacturing System - A Matrix Geometric Solution Approach. Canadian Operational Research Society / Optimization Days Joint Conference, May 8–10, 2006, Montreal, Canada.
12. S. Jayaswal and E. M. Jewkes. A matrix geometric model of an assemble-to-order system, CanQueue, Sept. 23–25, 2005, Hamilton, Canada.
13. S. Jayaswal and G.K. Adil. An approach to designing focused plants-within-a-plant. International Conference on Operations Research for Development, Dec 27–30, 2002, Chennai, India.

CASE STUDIES

1. R. Kumar, S. Jayaswal. Flipkart. Under preparation.
2. D. Nag, V. Bhushan, S. Kaushik, S. Jayaswal. Managing workforce at Superior Refinery Limited. IIMA/QM0273
3. H. Palan, S. Jayaswal and A. Jaiswal. 2010. Parle Bisleri at Crossroad. IIMA/MAR0419.

TEACHING INTERESTS

- Modeling for Decisions; Large-Scale Optimization (Decomposition Techniques)
- Operations Management; Logistics & Supply Chain Management; Game Theory & Applications

TEACHING EXPERIENCE

Indian Institute of Management Ahmedabad, India

- **MBA Courses**
 - Operations Management I, Operations Management II, Decision Making I, Preparatory Course in Mathematics
- **1-Year Executive MBA Courses**
 - Modeling for Decisions, Supply Chain Management (co-taught with Saral Mukherjee)
- **Ph.D. Courses**
 - Large-Scale Optimization, Seminar in Operations Management (Module on Game Theory)
- **Faculty Development Programs**
 - Decision Making, Statistics for Data Analysis
- **Short Duration Executive Programs**
 - Middle Management, Supply Chain Management, General Management Program in Bhutan, General Management Program in Dubai, B2B Marketing, International Business
- **Company Training Programs**
 - Indian Oil Corporation; Essar Group; Cummins India Ltd.; Food Corporation of India

University of Waterloo, Canada

- **Undergraduate Courses**
 - Production & Service Operations Management Winter 07, Winter 08, Fall 08

NEW COURSES DEVELOPED

- Large Scale Optimization, Ph.D. level, Indian Institute of Management Ahmedabad

- OR for Consultants, MBA level, Indian Institute of Management Ahmedabad
- Game Theory for Operations Management, Ph.D. level, Indian Institute of Management Ahmedabad

STUDENT SUPERVISION

Doctoral Theses

1. Prasanna Ramamoorthy, Indian Institute of Management Ahmedabad, India (supervisor). Proposal presented on May 19, 2015.
Thesis Title: Hub-and-Spoke Network Design under the Risk of Interdiction: Models and Solutions Approaches.
2. Amit Vatsa, Indian Institute of Management Ahmedabad, India (co-supervisor with Prof. Diptesh Ghosh). Graduated July, 2015.
Thesis Title: Facility Location Problem with Server Uncertainty
3. Harish Rao, Indian Institute of Management Ahmedabad, India (member, thesis advisory committee). Graduated in 2013.
Thesis Title: Stochastic Optimization Based Decision Support System for Asset-Liability Management in Life Insurance Firms.

Masters' Projects

1. Gyan Vardhan, Ruchir Gupta, Kavya Ramanathan, Indian Institute of Management Ahmedabad, India, Sept–Nov 2014.
Project Title: Course scheduling at IIMA.
2. Ratnesh Kumar, Amit Singh, Manish Kumar Oraon, Indian Institute of Management Ahmedabad, India, Sept–Nov 2014.
Project Title: Survivable network design with queuing delays.
3. Gurbaksh Khalsa and Laalithya B, Indian Institute of Management Ahmedabad, India, June–Aug 2014.
Project Title: Course scheduling at IIMA.
4. Debabrata Nag, Vidya Bhushan and Satish Kaushik, Indian Institute of Management Ahmedabad, India, June–Aug 2013.
Project Title: Managing Workforce at Superior Refinery Limited.
5. Anubhav Sinha and Vishrut Awasthi, Indian Institute of Management Ahmedabad, India, Sept–Dec 2013.
Project Title: JIT implementation in India.
6. Kiran Dukare, Nitesh Gara and Jayant Mandal, Indian Institute of Management Ahmedabad, India, June–Aug 2013.
Project Title: Bus and crew scheduling at B.E.S.T.
7. Bhabani S. Pattanayak and Prashant K. Patel, Indian Institute of Management Ahmedabad, India, Sept–Dec 2012.
Project Title: Analysis of Supply Chains in the Processed Food Sector in India.
8. Anup M. Savale, Indian Institute of Science Education and Research, Pune, India. Aug 2012–Mar 2013.
Thesis Title: Game Theoretic Models of Product Differentiation.

THESIS EXAMINATION

Ph.D. Theses

1. Chairperson, Thesis Examination Committee for Ravi Kothari, Indian Institute of Management Ahmedabad, India, 2013

Thesis Title: Metaheuristics for the Single Row Facility Layout Problem

2. Member, Thesis Examination Committee for Sandeep Karmarkar, Indian Institute of Management Ahmedabad, India, 2010

Thesis Title: Essays on Revenue Management

CONSULTANCY ASSIGNMENTS

- Position paper on Managing Crowd at Places of Mass Gathering for National Disaster Management Authority, Government of India 2012-13
- Crowd Management for Maa Vaishno Devi Shrine Board 2010-11

ADMINISTRATION

- Member, PGPX Executive Committee, IIMA 2013–15; 2015–17
- Member, PGPX Admissions Committee, IIMA 2015–17
- Member, Library Committee, IIMA 2010–12; 2014–16
- Coordinator, Middle Management Program June 12–Feb 14
- Member, Review Committee, Vikalpa: The Journal for Decision Makers March 11–Oct 11
- Interviews for PGP, PGP-ABM, PGPX, FPM admissions and AA recruitment

PROFESSIONAL SERVICES

Referee for Journals

- European Journal of Operational Research;
- International Journal of Production Economics
- International Journal of Production Research
- OMEGA
- Optimization Letters
- Interfaces
- International Journal of Advanced Manufacturing Technology
- Vikalpa

Referee & Session Chair for Conferences

- International Conference on Advanced Data Analysis, Business Analytics and Intelligence, Indian Institute of Management Ahmedabad, India 2011; 2013; 2015