

Prasanna R

CONTACT INFORMATION	Indian Institute of Technology Delhi Hauz Khas, New Delhi - 110016	Phone: (+91)- 8838398135 E-mail: prastr29@yahoo.com
EXPERIENCE	Assistant Professor, Department of Management Studies, Indian Institute of Technology Delhi, India.	Jun' 2019 - present
	Post-Doctoral fellow John Molson School of Business, Concordia University, Canada.	Mar' 2018 - Mar' 2019
	Assistant Manager Mahindra Auto Sector, Nashik, India.	Aug' 2008 - Jun' 2012
EDUCATION	Fellow in Management (Production & Quantitative Methods) Indian Institute of Management Ahmedabad (IIMA), India. Thesis title: Hub Interdiction Problems: Model Formulations and Solution Approaches.	Jun' 2012 – Mar' 2018
	Bachelor of Engineering (Production Engineering) Madras Institute of Technology Campus, Anna University, India.	Aug' 2004 – May 2008
RESEARCH INTERESTS	APPLICATION INTERESTS • Supply Chain Management and Disruption • Hub-and-Spoke Network Design • Manufacturing and Project Management • Passenger & Goods Logistics • Urban Transportation METHODOLOGICAL INTERESTS • Integer/Mixed Integer Programming • Large Scale Optimization using Exact Methods and Heuristics • Optimization under Data Uncertainty (Stochastic and Robust) • Multi-level and Multi-objective Optimization Problems • Machine Learning for Optimization • Inverse Optimization	
JOURNAL PUBLICATIONS	• Salode, C., Ramamoorthy, P., "Train timetabling with rolling stock assignment, short-turning, and skip-stop strategy for a bidirectional metro line", <i>Transportation Research Part- B</i> (accepted) • Ramamoorthy, P., Jayaswal, S., Sinha, A., Vidyarthi, N., "An Exact Method for Trilevel Hub Location Problem with Interdiction", <i>European Journal of Operational Research</i>, 319(3), 2024. • Ramamoorthy, P., Vidyarthi, N., Verma, M., "Efficient Solution Approaches for Bi-criteria p-Hub Median and Dispersion Problem", <i>European Journal of Operational Research</i>, 314(1), 2024. • Sripada, S., Jain, A., Ramamoorthy, P., Ramamohan, V., "A Decision Support Framework for Optimal Vaccine Distribution Across a Multi-tier Cold Chain Network", <i>Computers & Industrial Engineering</i> 182, 2023.	

- Kapoor, N., Ahmad, N., Nayak, S.K., Singh, S.P., Ilavarasan, V., Ramamoorthy, P., “Identifying infrastructural gap areas for smart and sustainable tribal village development: A data science approach from India”, *International Journal of Information Management Data Insights* 1(2), 2021.
- Ramamoorthy, P., Jayaswal, S., Sinha, A., Vidyarthi, N., “Multiple Allocation Hub Interdiction and Protection Problems: Model Formulations and Solution Approaches”, *European Journal of Operational Research* 270(1), 2018, pp. 230-245.

CONFERENCE
PROCEEDINGS

- Goyal, R., Kumar, G. S., Ramamoorthy, P., Srivastava, A. (2025). A Scalable Entropy-Based Framework for Intermodal Hub Location and Routing in Freight Transport Network. In *2025 Eleventh Indian Control Conference (ICC)* (pp. 159-164). IEEE.
- Sen, D., Ramamoorthy, P., Ramamohan V., “Optimal minimal-contact routing of randomly arriving agents through connected networks”, *Winter Simulation Conference 2021 Proceedings*.

MANUSCRIPTS
UNDER
PREPARATION:

- Ramamoorthy, P., Exact Algorithms for Trilevel Network Design - Interdiction Problems. *Target: Operations Research*
- Ramamoorthy, P., Jayaswal, S., Sinha, A., Vidyarthi, N., Efficient Formulations for Multiple Allocation Hub Network Interdiction Problems. *Computers & Operations Research (Reject and Resubmit)*
- Salode, C., Ramamoorthy, P., Optimizing Train Marshaling with shunter in a flat rail yard: Integer Programming Formulations and Solution Algorithms. *Target: Transportation Science*
- Salode, C., Ramamoorthy, P., Vidyarthi, N., Junction Hub Location Problems: Model Formulations and Solution Approaches. *Target: Transportation Science*
- Mukherjee, S., Ramamoorthy, P., Vidyarthi, N., A Branch-and-Cut method to solve q -Allocation Hub Interdiction Problem. *Target: Naval Research Logistics*
- Ramamoorthy, P., Jayaswal, S., Sinha, A., Vidyarthi, N., Robust Hub Interdiction Problems. *Target: Journal of the Operational Research Society*
- Ramamoorthy, P., Parameter Learning in Interdiction Problems using Inverse Optimization. *Target: INFORMS Journal on Computing*
- Narula, A., Ramamoorthy, P., Ramamohan, V., Minimal Contact Optimal Routing across Connected Networks for Stochastically Arriving Agents: A Mixed Integer Linear Programming Framework. *Target: IIE Transactions*

CONFERENCE
PRESENTATIONS

- Salode, C., Ramamoorthy, P., “Single line Single Allocation Hub Location Problem ”, *INFORMS Annual Meeting. Oct. 26 - 29, 2025, Atlanta*.
- Salode, C., Ramamoorthy, P., “Integer Programming Formulations for the Train Marshaling Problem ”, *Finalist Presentation, RAS, INFORMS Annual Meeting. Oct. 20 - 23, 2024, Seattle*.
- Salode, C., Ramamoorthy, P., “Train Timetabling with rolling stock assignment and Short-turning strategy for a bidirectional metro line ”, *Finalist Presentation, RAS, INFORMS Annual Meeting. Oct. 15 - 18, 2023, Phoenix*.
- Ramamoorthy, P., Mukherjee, S., “Single Allocation Hub Interdiction Problem: Model Formulations and Solution approaches”, *INFORMS Annual Meeting. Oct. 16 - 19, 2022, Indianapolis*.
- Ramamoorthy, P., Jayaswal, S., Sinha, A., Vidyarthi, N., “Hub location problem under

the risk of interdiction”, *Optimization Days 2018, May 07 - 09, 2018, Montreal*.

- Ramamoorthy, P., Jayaswal, S., Sinha, A., Vidyarthi, N., “Efficient formulations for the Hub Interdiction Problem: Models and solution approaches”, *INFORMS Annual Meeting. Nov. 13 - 16, 2016, Nashville*.

PH.D. SUPERVISION

- Saikat Mukherjee., “Essays on Network Interdiction Problems”, (2020–)
- Pavan Soni., “Applications of Robust Optimization in Airlines Industry”, (2020–)
- Chanchal Kumar Salode., “Essays on Metro Transit Operations”, (2021–)
- Satadru Banerjee., ”Learning Enhanced Large-Scale Optimization for problems in logistics”, (2024–)

COURSES TAUGHT

- Operations Management - MBA Core
- Quantitative Methods in Management - MBA Core
- Applied Operations Research - MBA, M.Tech, and B.Tech Elective
- Managing Operations - B.Tech Core

AWARDS AND FELLOWSHIPS

Third Prize, Emerging Leaders Competition, PRISM Foundation, New Delhi, India	2025
Finalist, INFORMS RAS Problem Solving Competition, Seattle, USA	2024
Second Prize, INFORMS RAS Problem Solving Competition, Phoenix, USA	2023
Young Faculty Innovation Fellowship, IIT Delhi	2019 - 2022
Quebec Provincial Tax Waiver Award, Canada	2018 - 2023
Fellowship award from IIMA.	2012 - 2017

CONSULTING ASSIGNMENTS

- Data and Decision Sciences consulting for development of Tribal villages - Government of India (Co-Principal Investigator) (*Budget - 4mn INR*)
- Planning Security Solutions for ASI monuments - Government of India (Co-Principal Investigator) (*Budget - 18.6mn INR*)
- Route Optimization study for Food Corporation of India - Government of India (Co-Principal Investigator) (*Budget - 17.4mn INR*)
- Intermodal Hub Location and Sorting Centers for Center for Railway Information Systems (Principal Investigator) (*Budget - 2mn INR*)

ADVISORY FOR STARTUPS

- Sensei Algorithm Design (2024 -)

INDUSTRIAL TRAINING

- Executive Program on Advanced Project Management (3 batches completed)
- Supply Chain Management for NTPC Executives
- Executive Program on Operations Management & Analytics

- ADMINISTRATIVE RESPONSIBILITIES
- Warden, Udaigiri Hostel, IIT Delhi (2024 -)
 - Associate Warden, Udaigiri Hostel, IIT Delhi (2023 - 24)
 - Co-ordinator, Ranking and Information Office, DMS, IIT Delhi (2019 - 2025)
 - Co-ordinator, Ph.D. Program, DMS, IIT Delhi (2022 - 2025)
 - Co-ordinator, Ranking and Accreditation, DMS, IIT Delhi (2025 -)
 - Secretary, Department Research Committee (2023 - 2025)
- EDITORIAL RESPONSIBILITIES
- Reviewer for: European Journal of Operational Research, International Journal of Production Economics, International Journal of Production Research, Transportation Research Part-B Methodological.
- SOFTWARE SKILLS
- Mathematical Modelling languages: CPLEX (Concert Technology), Gurobi, AMPL
 - Programming Languages: C, C++, Python.
 - Data Analysis: R, MS-Excel, Minitab
- REFERENCES
- Dr. Sachin Jayaswal,
Professor, Indian Institute of Management Ahmedabad, India
Email: sachin@iima.ac.in.
<https://www.iima.ac.in/faculty-research/faculty-directory/sachin-jayaswal>
 - Dr. Navneet Vidyarthi,
Professor, John Molson School of Business,
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Email: N.Vidyarthi@concordia.ca.
<https://www.concordia.ca/jmsb/faculty/navneet-vidyarthi.html>
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 - Dr. Manish Verma,
Professor, DeGroote School of Business,
McMaster University, Canada
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