

Ali Shirzadeh

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Education

Ph.D. in Industrial Engineering **Sep 2008 – Aug 2014**
Sharif University of Technology, Tehran, Iran
Dissertation: “*Project Scheduling subject to Nonrenewable Resources with Prescheduled Procurement*”,
Advisor: Dr. Shahram Shadrokh

M.Sc. in Industrial Engineering **Sep 2006 – Sep 2008**
Sharif University of Technology, Tehran, Iran
Dissertation: “*Customization of an Organizational Project Management Maturity Model for Construction Industry*”
Advisor: Dr. Alireza Haji

B.Sc. in Industrial Engineering **Sep 2002 – Sep 2006**
Sharif University of Technology, Tehran, Iran
Dissertation: “*Feasibility Study based on UNIDO method and Layout Design of the Production Plant of Water-based Air-conditioner Motors*”
Advisor: Prof. Mohammad Reza Safaieh

Academic Appointments

Lecturer **Sep 2022 – Present**
Operations and Information Management, Isenberg School of Management, University of Massachusetts Amherst, USA

Adjunct Lecturer **Sep 2021 – May 2022**
Supply Chain & Information Management Group, D’Amore-McKim School of Business, Northeastern University, USA

Adjunct Lecturer **Jan 2022 – May 2022**
Math & Science Division, Babson College, USA

Visiting Scholar **Oct 2021 – Sep 2022**
Supply Chain Management Group, College of Business, University of Rhode Island, USA

Visiting Scholar **Apr 2019 – Oct 2021**
*Department of Management Science and Information Systems, College of Management,
University of Massachusetts Boston, USA*

Assistant Professor **Jan 2015- Mar 2019**
Department of Industrial Engineering, Islamic Azad University, Tehran-Gharb Branch, Iran

Adjunct Assistant Professor **Jan 2014- Dec 2014**
Department of Industrial Engineering, Islamic Azad University, Tehran-Gharb Branch, Iran

Adjunct Professor **Jan 2013- Dec 2013**
Department of Industrial Engineering, Islamic Azad University, Shiraz Branch, Iran

Visiting Scholar **Jan 2012- Jun 2012**
*Edward P. Fitts Department of Industrial and Systems Engineering, North Carolina State
University, USA*

Research Assistant **Jan 2011- Jan 2012**
Department of Industrial Engineering, Sharif University of Technology, Iran

Teaching Assistant **Sep 2008- Jul 2010**
Department of Industrial Engineering, Sharif University of Technology, Iran

Teaching Experiences

Iisenberg School of Management, University of Massachusetts Amherst

- Undergraduate Courses
 - **OIM240 Business Data Analysis (in-person and online)**
 - **OIM452 Business Processes & Enterprise Systems (in-person and online)**
 - **OIM454 Data Mining in Business (in-person)**
- Graduate Course (MBA and MSBA programs)
 - **SCH-MGMT655 Data Mining in Business (in person)**

*Supply Chain & Information Management Group, D'Amore-McKim School of Business,
Northeastern University*

- Undergraduate Courses (in-person)
 - **Business Statistics**

Math & Science Division, Babson College

- Undergraduate Courses (in-person)
 - **Predictive Data Analytics**

Department of Industrial Engineering, Islamic Azad University, Tehran-Gharb Branch

- Undergraduate Courses (all in-person)
 - **Project Planning and Control**
 - **Production Planning**

- **Probability Theory**
- Graduate Courses (all in-person)
 - **Queuing Theory**
 - **Scheduling**
 - **Graduate Seminar**

Department of Industrial Engineering, Islamic Azad University, Shiraz Branch

- Undergraduate Courses (all in-person)
 - **Project Planning and Control**
 - **Production Planning**
 - **Operations Research**

Department of Industrial Engineering, Sharif University of Technology

Teacher Assistant in:

- Undergraduate Courses (all in-person)
 - **Probability Theory**
- Graduate Courses (all in-person)
 - **Fuzzy Theory**
 - **Pricing and Revenue Management**

Service Activities

Iseberg School of Management, University of Massachusetts Amherst

- Team Advisor for SAP ERPsim Game North America 2023 (Fall 2022)
- Team Advisor for ERPsim Sustainability Challenge 2022 (Spring 2023)
- Team Advisor for Business Analytics Competition at Manhattan College 2023 (Spring 2023)
- SAP Faculty Coordinator (Summer 2023 to Present)
- Search Committee Member for Lecturer in Business Statistics (Fall 2023 to Spring 2024)

Accolades

- **Session Chair and Invited Keynote Speaker**, 838th International Conference on Science, Technology, Engineering and Management (ICSTEM), 16th-17th Jan, 2021 at Boston, USA
- Member of Iran's National Elites Foundation, 2015
- **Outstanding Ph.D. Graduate Award**, Sharif University of Technology, Industrial Engineering Department, 2014
- **Best Paper Award** in 9th International Industrial Engineering Conference, Jan 20th-21st, 2013, Tehran, Iran
- **Graduate Research Assistantship Award**, Sharif University of Technology, Industrial Engineering Department, 2011 and 2012
- **Ranked 1st** in Sharif University of Technology, Industrial Engineering Ph.D. program entrance exam, 2007
- **Ranked top 0.3%** among more than 4,000 countrywide participants of Sharif University of Technology, Industrial Engineering M.Sc. program entrance exam, 2006

- **Ranked top 0.6%** among around 4,000 countrywide participants of Sharif University of Technology, Industrial Engineering M.Sc. program, minor in Economic and Social Systems entrance exam, 2006
- **Ranked top 0.9%** among around 4,000 countrywide participants of Sharif University of Technology, Industrial Engineering M.Sc. program, minor in System and Productivity Administration, 2006
- **Ranked top 0.1%** among around 400,000 countrywide participants of national universities entrance exam for B.Sc. programs, 2002

Research Interests

- **Supply Chain Management**
- **Marketing Strategy**
- **Project Scheduling and Management**
- **Product Pricing and Return**

Publications and Presentations¹

- **Shirzadeh, A.**, Elahi, E., Fathi, M., Khakifirooz, M., Ebrahimpour, M., “The Impact of Emerging Trends and Increased Supply Chain Costs on Retail Goods Returns: An Analytical Model for Optimizing Pricing and Refund Strategies”, 15th International Conference on Computational Logistics: 'The Future of AI in Logistics (ICCL 2024), September 8th-10th, 2024
- **Shirzadeh, A.**, Elahi, E., “Impact of Increased Supply Chain Expenses on Retail Product Return Management”, POMS 2024 Annual Conference, April 25th-29th, 2024.
- **Shirzadeh, A.**, Elahi, E., “Impact of Increased Supply Chain Expenses on Retail Product Return Management”, Northeast Decision Science Institute (NEDSI) 2024 Conference, April 4th-6th, 2024.
- **Shirzadeh, A.**, Elahi, E., “Numerical Optimization of Price and Return Strategies for Retail Consumers Products”, SIAM Conference on Optimization (OP23), May 31st-June 3rd, 2023.
- **Shirzadeh, A.**, Elahi, E., “Retail Product Return Management under Increased Supply Chain Expenses”, Production and Operations Management Society Conference (POMS 2023), May 21st-25th, 2023.
- **Shirzadeh, A.**, Elahi, E., Ebrahimpour, M., “Transformative Marketing and Operations Management to Impact Reverse Logistics Flows”, *Reverse Logistics Magazine*, Sep 2022.
- **Shirzadeh, A.**, Elahi, E., Ebrahimpour, M., “Product Salvage Values to Reform Return Management Strategies”, *Reverse Logistics Magazine*, Edition 119, May 2022.
- **Shirzadeh, A.**, Elahi, E., Fathi, M., Khakifirooz, M., “Profit and Social Impact of Return Leniency: a Numerical Study”, *Computers & Industrial Engineering*, Vol. 169, 2022, 108-149.
- **Shirzadeh, A.**, Elahi, E., Fathi, M., Khakifirooz, M., Ebrahimpour, M., “Impact of Transformative Marketing and Operations Management on Customers’ Behavior”, Production and Operations Management Society Conference (POMS 2022), Apr 21st-25th, 2022.
- **Shirzadeh, A.**, Elahi, E., “Product Return Management Strategies”, *Reverse Logistics Magazine*, Edition 117, Jan 2022.
- **Shirzadeh, A.**, Elahi, E., “An Investigation of the Benefit of Optimal Refund over the Full Refund Strategy in Retail Market, a Numerical Study”, *Cyrus Global Business Perspectives*, Vol. 6, No. 1, Dec. 2021.

¹ graduate student advisee names are marked by *

- **Shirzadeh, A.**, Elahi, E., “Socially Optimal Retail Return Strategies under the Influence of Endowment Effect”, Production and Operations Management Society Lima Virtual Conference (POMS Lima 2021), Dec 2nd – 4th, 2021.
- **Shirzadeh, A.**, Elahi, E., “Investigating the Profit and Social Impact of Product Return Leniency”, INFORMS Annual Meeting, Oct 24th-27th, 2021.
- **Shirzadeh, A.**, Elahi, E., “An Investigation of the Benefit of Optimal Refund over the Full Refund Strategy in Retail Market, a Numerical Study”, CIK conference 2021, Oct 20th-22nd, 2021.
- **Shirzadeh, A.**, Elahi, E., “Product Information Strategies to Soothe E-Commerce Returns”, *Reverse Logistics Magazine*, Edition 114, 15(3), Jun 2021.
- **Shirzadeh, A.**, Elahi, E., “Investigation of the Impact of Loss Aversion on the Optimal Return Strategies”, Production and Operations Management Society 31st Annual Conference (POMS 2021), 30th Apr – 5th May 2021.
- **Shirzadeh, A.**, “Wisely Breaking the Industrial Dam”, *Small Business Today Magazine*, Feb-Mar 2021.
- **Shirzadeh, A.**, Elahi, E., “Impact of Information Provision on Optimal Return Strategies”, International Conference on Science, Technology, Engineering and Management (ICSTEM), Jan 16th-17th, 2021, Boston, USA.
- **Shirzadeh, A.**, Elahi, E., “Optimal Return Strategies under the Influence of Endowment Effect”, International Conference on Science, Technology, Engineering and Management (ICSTEM), Jan 16th-17th, 2021, Boston, USA.
- **Shirzadeh, A.**, Shadrokh, Sh., Khakifirooz, M., Fathi, M., Pardalos, P. M., “A hybrid Genetic and Lagrangian relaxation algorithm for Resource-Constrained Project Scheduling under Nonrenewable Resources”, *Applied Soft Computing*, vol. 94, Sep 2020, 106482.
- **Shirzadeh, A.**, “Explore Your Business Cube”, *Small Business Today Magazine (Online)*, Aug 2020.
- **Shirzadeh, A.**, “Resource Tardiness Weighted Cost Minimization in Project Scheduling”, *Advances in Operations Research*, Volume 2017 (2017), Article ID 1308704, 11 pages.
- Mirzaei, H.*, **Shirzadeh, A.**, Zeinalnezhad, M., “Vehicle Routing Robust Modeling subject to Simultaneous Pickups and Deliveries, Time Windows, and Labors Allocation”, 3rd International Conference on Industrial Engineering and Management, Dec 28th-29th, 2017, Tehran, Iran.
- Mirzaei, H.*, **Shirzadeh, A.**, Zeinalnezhad, M., “The Design of Hybrid Meta-heuristic for Vehicle Routing Problem with Consideration of Labors Cooperation”, 3rd International Conference on Industrial Engineering and Management, Dec 28th-29th, 2017, Tehran, Iran.
- **Shirzadeh, A.**, Yousefi Saleh, L.*, Amoozad Khalili, H., “Solving Project Scheduling Problem subject to Nonrenewable Resources with Prescheduled Procurement using Particle Swarm Optimization Algorithm”, 295th International Conferences on Engineering and Natural Sciences, Nov 26th-27th, 2017, Vienna, Austria
- Yousefi Saleh, L.*, **Shirzadeh, A.**, Amoozad Khalili, H., “Solving Project Scheduling Problem Subject to Nonrenewable Resources with Prescheduled Procurement using Metaheuristic Algorithm of Scatter Search”, 3rd International Conference on Industrial and Systems Engineering, Sep 13th-14th, 2017, Mashhad, Iran.
- **Shirzadeh, A.**, “Resource Tardiness Weighted Cost Minimization in Project Scheduling”, 11th International Industrial Engineering Conference, Jan 7th-8th, 2015, Tehran, Iran.
- **Shirzadeh, A.**, Shadrokh, Sh., “A Branch and Cut Algorithm for Resource Constrained Project Scheduling Problem subject to Nonrenewable Resources with Prescheduled Procurement”, *Arabian Journal for Science and Engineering*, 2014, doi. 10.1007/s13369-014-1319-9.
- **Shirzadeh, A.**, Shadrokh, Sh., Fathi, Y., “Branch and Bound Algorithms for Resource Constrained Project Scheduling Problem Subject to Nonrenewable Resources with

Prescheduled Procurement”, *Mathematical Problems in Engineering*, Volume 2014 (2014), Article ID 634649, 15 pages.

- **Shirzadeh, A.**, Shadrokh, Sh., “Resource Constrained Project Scheduling Problem subject to Cumulative Resources”, *International Journal of Mining, Metallurgy & Mechanical Engineering (IJMMME)*, vol. 1 (1), 2013, pp. 38-47.
- **Shirzadeh, A.**, Shadrokh, Sh., “Branch and Cut Algorithm for Resource Constrained Project Scheduling Problem subject to Nonrenewable Resources with Pre-scheduled Procurement”, 6th International Conference of Iranian Operations Research Society, May 8th-9th, 2013, Tehran, Iran.
- **Shirzadeh, A.**, Shadrokh, Sh., “Minimal Delaying Alternatives Algorithm for Solving Resource Constrained Project Scheduling Problem subject to Nonrenewable Resources with Prescheduled Plan”, 9th International Industrial Engineering Conference, Jan 20th-21st, 2013, Tehran, Iran.
- Khalilzadeh, M., Kianfar, F., **Shirzadeh, A.**, Shadrokh, Sh., Ranjbar, M., “A Modified PSO Algorithm for Minimizing the Total Cost of Resources in MRCPSP”, *Mathematical Problems in Engineering*, Volume 2012 (2012), Article ID 365697, 18 pages.
- **Shirzadeh, A.**, Shadrokh, Sh., “Resource Constrained Project Scheduling Problem subject to Cumulative Resources, a Genetic Algorithm”, International Scientific Academy of Engineering and Technology (ISAET), Dec 29th-30th, 2012, Kuala Lumpur, Malaysia.
- **Shirzadeh, A.**, Shadrokh, Sh., “A Branch and Bound Algorithm for Resource Constrained Project Scheduling Problem subject to Cumulative Resources”, *International Journal of Industrial and Manufacturing Engineering*, vol. 6, no. 2, 2012, pp. 376-381.
- **Shirzadeh, A.**, Shadrokh, Sh., “Solving Resource Constrained Project Scheduling Problem subject to Nonrenewable Resources with Prescheduled Procurement”, 10th International Management Conference, Nov 29th, 2012, Tehran, Iran.
- **Shirzadeh, A.**, Shadrokh, Sh., “A Branch and Bound Algorithm for Resource Constrained Project Scheduling Problem subject to Cumulative Resources”, International Conference on Manufacturing Engineering (ICME), Feb 19th-21st, 2012, Kuala Lumpur, Malaysia.
- **Shirzadeh, A.**, Shadrokh, Sh., “Branch and Bound Algorithms for Resource Constrained Project Scheduling Problem subject to Cumulative Resources”, International Conference on Information Management, Innovation Management and Industrial Engineering, Nov 26th-27th, 2011, Shenzhen, China, vol. 1, pp. 147-152.

Professional Services

- **Editorial Board Member**
 - *Frontiers in Artificial Intelligence*
- **Reviewer**
 - *European Journal of Operational Research*
 - *OMEGA*
 - *Computers and Industrial Engineering*
 - *Journal of Interactive Marketing*
 - *Journal of Business Research*
 - *International Journal of Production Economics*
 - *Production Planning & Control*

Selected Reviews

- “*Handbook of Smart Energy Systems*”, Springer Nature, Under publications.
- “*Large Scale Optimization in Supply Chain and Smart Manufacturing: Theory and Applications*”, Springer, 2019.

Graduate Theses Advised

- Eslami, A., “Using M/M/c/K Queuing System for Locating Temporary Distribution Facilities for Emergency Response”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.

Advisor

Mar 2018 to Jan 2019

- Salehi, P., “Reducing Production and Maintenance Operating Costs using an Integrated Production planning; Case study: Zarif Mosavar Production Group”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.

Advisor

Feb 2018 to Dec 2018

- Mostaghimi, M., “Simultaneous Optimization of Project Scheduling and Material Procurement Planning”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.

Advisor

Sep 2017 to Jan 2019

- Dehghani, S., “Vehicle Routing Problem subject to Simultaneous Pickups and Deliveries, aiming at Sustainable Development Goals (Case Study: Liquidity Management at Bank Branches)”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.

Co-Advisor

Mar 2017 to Sep 2018

- Mirzaei, H., “Robust Mathematical Modeling of a Vehicle Routing Problem subject to Simultaneous Pickups and Deliveries, Time Windows, and Labor Allocations”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.

Advisor

Feb 2017 to Sep 2017

- Dabaghi, M., “Performance Evaluation of Sustainable Supply Chain Management using DBSC”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.

Co-Advisor

Feb 2017 to Sep 2018

- Kosari, E., “Bi-Objective Crew Scheduling Model for Train Drivers, considering personnel satisfaction (Case Study: Iran Railway Company)”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.

Co-Advisor

Feb 2017 to Sep 2018

- Honari, Sh., “A Mathematical Model for Scheduling Oil, Gas, and Petrochemical Projects”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.

Advisor

Dec 2016 to Sep 2017

- Sadeghi, F., ‘Supplier Evaluation and Selection under a Combined MTS / MTO Supply Chain Strategy, considering the Order Penetration Point’, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.
Co-Advisor **Dec 2016 to Sep 2017**
- Amini, S., “A Model for Analyzing the Risks of Construction Projects”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.
Advisor **Nov 2016 to Aug 2018**
- Dehghan, A., “*An Integrated Model of Supply Chain Relief Logistics and Metaheuristic Solution Algorithms*”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.
Co-Advisor **Aug 2016 to Sep 2017**
- Aliakbar Khani, S., “Project Scheduling subject to Renewable and Nonrenewable Resources with Prescheduled Procurement, aimed at Minimization of Resource Tardiness Cost”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.
Advisor **Aug 2016 to Feb 2017**
- Yousef Salehi, L., “Solving Project Scheduling Problem subject to Nonrenewable Resources with Prescheduled Procurement, using Heuristic and Metaheuristic Algorithms”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.
Advisor **Aug 2016 to Feb 2017**
- Hatefi, N., “New MIP Mathematical Model for Closed-Loop Supply Chain Optimization and Supplier Selection”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.
Advisor **Aug 2016 to Feb 2017**
- Hajaghaei, S.M., “Production Planning Model for Deteriorating Items in Supply Chain and Vibration Damping Optimization Algorithm”, M.Sc. Thesis, Industrial Engineering Department, Islamic Azad University, Tehran-Gharb Branch, Tehran, Iran.
Advisor **Aug 2016 to Feb 2017**

Society Memberships/Registrations

- The International Society of Global Optimization (iSoGO)
- Institute of Industrial and Systems Engineers (IISE)
- Society for Industrial and Applied Mathematics (SIAM)
- Institute for Operations Research and the Management Sciences (INFORMS)
- Project Management Institute (PMI)
- Association for Supply Chain Management
- Society of production and operations management
- Reverse logistics association (RLA)