# Fereshteh Mafakheri, PhD, PEng
Assistant Professor

École nationale d'administration publique (ENAP)
Université du Québec
Montreal, QC, Canada

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Academic Experience

**Assistant Professor,** École nationale d'administration publique (ENAP), Université du Québec, Montreal, QC, Canada, 2021-

**Assistant Professor (Affiliate),** Gina Cody School of Engineering and Computer Science, Concordia University, Montreal, QC, Canada, 2019-

**Extended Term Faculty (ETA),** Concordia Institute of Information Systems Engineering (CIISE), Gina Cody School of Engineering and Computer Science, Concordia University, Montreal, QC, Canada 2018-2021

**Limited Term Faculty (LTA),** Concordia Institute of Information Systems Engineering (CIISE), Gina Cody School of Engineering and Computer Science, Concordia University, Montreal, QC, Canada 2016-2018

**Senior Lecturer,** Department of Systems Management, University of Greenwich, London, UK 2013-2014

**Lecturer,** Department of Systems Management, University of Greenwich, London,UK, 2011-2013

**Research Assistant,** School of Engineering and Applied Science, Yale University, New Haven, CT, USA 2010- 2011

**Research Assistant,** Group for Research in Decision Analysis (GERAD), HEC Montreal/McGill/UQAM, Canada 2008-2011

**Research Assistant,** Project Management Specialization, University of Calgary, Canada, 2006- 2007

Education

**PhD** in Decision Sciences (2011)
HEC Montreal (University of Montreal), Montreal, Canada

**Master of Applied Science** in Industrial Systems Engineering (2006)
University of Regina, Regina, Canada

**Bachelor of Science** in Industrial Systems Engineering (2000)
Alzahra University, Tehran, Iran

## Awards

**Teaching Excellence Award** for "Sustained Excellence in Teaching", Gina Cody School of Engineering & Computer Science (GCS), Concordia University, 2021

## Funding & Grants

**NRCan Project Funding, Natural Resources Canada (NRCan) "**Agent-based Modeling and Simulation of Bioenergy Supply Chains in Canada for Bioeconomy Policy and Scenario Analysis", in collaboration with National Research Council (NRC) - Bioeconomy and Supply Chain Economics Division ($40,000), 2021, Role: PI

**MITACS Accelerate Partnership Grant**, "Digitization of supply chain routing decisions", Mathematics of Information Technology and Complex Systems (MITACS) with Hitek Inc., 2021 ($15,000), Role: PI

**NSERC Discovery Grant**, "Coordinated Sourcing, Logistics, and Production of Biomass-based Energy for Northern Communities of Canada", Natural Science & Engineering Research Council of Canada, 2019-2024 ($110,000), Role: PI

**RAE Competitive Investment Round Grant**, University of Greenwich, Project title: "A Framework for Modeling and Optimization of Biomass-for-Heat Supply Chains", Role: PI, 2012-2013, (£7,000)

**RAE Competitive Investment Round Grant,** University of Greenwich, Project title: "A Systems Approach to Modeling, Analysis, and Complexity Management of Revenue Sharing and Incentive Mechanisms in Reverse Logistics", 2011-2012,Role: PI (£9,000)

## Scholarship & Fellowship

**NSERC Visiting Postdoctoral Fellowship**, 2010 ($43,000) - declined

**NSERC Industrial R&D Postdoctoral Fellowship**, 2010 ($40,000) - declined

**FQRNT PhD Scholarship**, Le Fonds Québécois de la Recherche sur la Nature etles Technologies, 2009-2011 ($20,000/year)

**PhD Completion Award**, HEC Montreal, University of Montreal, 2010 ($12,500)

**PhD Candidacy Award**, HEC Montreal, University of Montreal, 2008 ($5,000)

**PhD Scholarship**, HEC Montreal, University of Montreal, 2008–2010($10,000/year)

**Research Assistantship**, HEC Montreal, University of Montreal, 2008–2009 ($8,000/year)

**Research Assistantship**, Project Management Specialization, University of Calgary, 2006-2007 ($15,000)

**Graduate Scholarship**, School of Graduate Studies, University of Regina,

2005($9000)

**Research Assistantship**, Faculty of Engineering, University of Regina, 2005 ($5,000)

**National University Entrance Exam for BSc**, ranked 399 among over 250,000participants, Iran (1996)

Journal Papers

[J18] Seyedan, S. Mahya, **Mafakheri, F.** and Wang, C. (2022). Cluster-Based Demand Forecasting Using Bayesian Model Averaging: An Ensemble Learning Approach, *Decision Analytics*, accepted-in-press.

[J17] Vazifeh, Z., **Mafakheri, F.**, and An, C. (2021). Biomass Supply Chain Coordination for Remote Communities: A Game-theoretic Modeling and Analysis Approach, *Sustainable Cities and Society*, 69, 102819 (Impact Factor: 7.587).

[J16] Cai, M., An, C., Guy, C., Lu, C., and **Mafakheri, F**. (2021). Assessing the regional biogenic methanol emission from spring wheat during the growing season: A Canadian case study, *Environmental Pollution*, 287, 117602 (Impact Factor: 8.071).

[J15] Daneshmand, M., Noroozi, F., Corneanu, C., **Mafakheri, F.**, and Fiorini, P. (2021). Industry 4.0 and Prospects of Circular Economy: A Survey of Robotic Assembly and Disassembly, *International Journal of Advanced Manufacturing Technology*, accepted-in-press (Impact Factor: 3.226).

[J14] Khodami, S., **Mafakheri, F.**, Zeng, Y. (2021). A system dynamics approach to comparative analysis of biomass supply chain coordination strategies, *Energies*, 14 (10), 2808 (Impact Factor: 3.004).

[J13] Seyedan, S. Mahya & **Mafakheri, F** (2020), Demand Forecasting in Supply Chain Management Using Big Data Analytics: Methods, Applications, and Research Opportunities, *Journal of Big Data 7:53, 1-22 (Impact factor: 2.501)*.

[J12] **Mafakheri, F.**, Adebanjo, D., Genus,A. (2020). "Coordinating Biomass Supply Chains for Remote Communities: A Comparative Analysis of Non- cooperative and Cooperative Scenarios". *International Journal Production Research*, accepted-in-press (Impact Factor: 8.568).

[J11] Nasiri, F., and **Mafakheri, F**., Adebanjo, D., Haghighat, F. (2017). "Modeling and Analysis of Renewable Heat Integration into Non-Domestic Buildings - TheCase of Biomass Boilers: A Whole Life Asset-Supply Chain Optimization Approach Using System Dynamics", *Biomass and Bioenergy*, 95, 244-256 (Impact Factor: 5.061).

[J10] D. Adebanjo, P Samaranayake, **F. Mafakheri**, and T. Laosirihongthong (2016). Prioritization of Six Sigma Project Selection: A Resource-Based View and Institutional Norms Perspective, *Benchmarking: An International Journal*, 23 (7), 1983-2003 (Impact Factor: 2.60).

[J9] F. Nasiri and **F. Mafakheri** (2015). "Postgraduate research supervision at a distance: a review of challenges and strategies", *Studies in Higher Education*, 40(10), 1962-1969 (Impact Factor: 3.363).

[J8] F. Nasiri and **F. Mafakheri** (2015). "Higher Education Lecturing and Humor: From Perspectives to Strategies", *Higher Education Studies*, 5 (5), 25-31.

[J7] A. Genus, **F. Mafakheri**. (2014). "A Neo-institutional Perspective of Supply Chains and Energy Security: Bioenergy in the UK", *Applied Energy*, 123, 307- 315 (Impact Factor: 9.746).

[J6] **F. Mafakheri**, F.Nasiri. (2014). "Modeling of Biomass-to-Energy Supply Chain Operations: Applications, Challenges and Research Directions", *Energy Policy*, 67, 116-126 (Impact Factor: 6.142).

[J5] **F. Mafakheri** and F. Nasiri. (2013). "Revenue Sharing Coordination in Reverse Logistics", *Journal of Cleaner Production*, 59, 185-196 (Impact Factor: 7.246).

[J4] **F. Mafakheri**, M. Breton, and S.S. Chauhan (2012). "Project-to-Organization Matching: An Integrated Risk Assessment Approach", *International Journal of IT Project Management*, 3(3), 45-59.

[J3] **F. Mafakheri**, M. Breton, and A. Ghoniem (2011). Supplier Selection-Order Allocation: A Two-Stage Multiple Criteria Dynamic Programming Approach, *International Journal of Production Economics*, 132 (1), 52-57 (Impact Factor: 7.885).

[J2] **F. Mafakheri**, F. Nasiri, and M. Moussavi (2008), Project Agility Assessment: An Integrated Decision Analysis Approach, *Journal of Production Planning and Control*, 19 (6), 567-576 (Impact Factor: 6.800).

[J1] **F. Mafakheri**, L. Dai, D. Slezak and F. Nasiri (2007). Project Delivery Systems Selection under Uncertainty: A Multi-Criteria Multi-Level Decision Aid Model, *ASCE Journal of Management in Engineering*, 23 (4), 200-26 (Impact Factor: 2.867).

Conferences

[C15] Vazifeh, Z., Khoddami, S., and **Mafakheri, F**. (2021). Customer churn prediction by integrating Principal Component Analysis (PCA) and classification techniques, Canadian Operational Research Society (CORS) annual conference, 7- 10 June (virtual).

[C14] Seyedan, M., **Mafakheri, F**. "Developing a framework for price optimization using demand forecasting feedback approach", INFORMS Conference on Service Science (ICSS 2020), December 19-21, 2020, (Virtual).

[C13] **Mafakheri, F.** "Big Data Analytics in Healthcare Supply Chain

Management: A Post Pandemic Perspective", Designing A Transdisciplinary Research on Ecology of Health Supply-Chain Networks Workshop, The 25th Society of Design and Process Science (SDPS) Conference (Virtual), Nov. 18-20, 2020.

[C12] **Mafakheri, F**. "A Comparative Analysis of Cooperative and Non-cooperativeBioenergy Supply Chain Coordination for Northern Canada", INFORMS International Conference, Cancun, Mexico, June 9-12, 2019.

[C11] Esmaeilzadeh, S., Nasiri, F., and **Mafakheri, F.,** "Principal role of agent-based approach in further advancements of bioenergy supply chain management", Optimization Days, Montreal, QC, Canada, May 7-9, 2018.

[C10] **F. Mafakheri** "Hospitals' Food Supply Chain Management: A Multi-Objective Dynamic Programming Approach", Optimization Days 2017 and 1st Canadian Healthcare Optimization Workshop (CHOW), Montreal, QC, May 8-11, 2017

[C9] F. Nasiri, and **F. Mafakheri** "Integrating Biomass Boilers into Non-domestic Buildings: A System Dynamics Analysis, CORS/INFORMS International Conference, Montreal, QC, June 14-17, 2015.

[C8] A. Genus, **F. Mafakheri**, Understanding biofuels transitions: the contribution of Scott's work on neo-institutional theory, International workshop on 'Tracing biofuel transitions: policies, practices and phase-outs', Eindhoven, The Netherlands,January 24-25, 2013.

[C7] **F. Mafakheri**, F. Nasiri, An Analysis of Equilibrium Coordination Incentives in Reverse Supply Chains, The 9th International Conference on Computational Management Science (CMS 2012), Imperial College London, UK, April 18-20, 2012.

[C6] **F. Mafakheri**, F. Nasiri, Coordination in Reverse Supply Chains, The 53rd Annual Conference of the Operational Research Society - OR53, Nottingham, UK, September 6-8, 2011.

[C5] **F. Mafakheri,** and M. Breton, A Risk Based Project-to-Organization MatchingSystem Using the Analytic Hierarchy Process, Decision Sciences Institute - The 40th Annual Meeting, New Orleans, USA, November 14-17, 2009.

[C4] **F. Mafakheri**, and M. Breton, A Two Stage Multiple Criteria-dynamic Programming Approach for Supplier Selection-order Allocation, INFORMS AnnualMeeting, San Diego, USA, October 11-14, 2009.

[C3] **F. Mafakheri**, F. Nasiri, and L. Dai, A Multiple Criteria Decision Aid Model for Agility Assessment: Application in Software Development Projects, The IET International Conference on Agile Manufacturing (ICAM 2007), Collingwood College, Durham University, UK, 9-11 July 2007.

[C2] **F. Mafakheri**, Development of a Decision Support System for project delivery system selection under uncertainty, The 1st Graduate Students' Research Conference, University of Regina, Regina, Canada, April 2006.

[C1] **F. Mafakheri**, L. Dai, D. Slezak, and F. Nasiri, Selecting the Optimal Project Delivery System: A Rough-AHP Decision Aid, Joint IEEE / WIC / ACM International Conference on Rough Sets and Soft Computing in Intelligent Agent and Web Technologies, Compiegne, France, 2005.

## Supervision

**PhD Students**

- *Mahsa Valipour*, (Co supervised with Dr. Chun Wang), PhD Student, Gina Cody School of Engineering and Computer Science, Concordia University, 2021-

  Thesis Subject: Demand Forecasting in Healthcare Supply Chain Management

- *Zahra Vazifeh* (Co supervised with Dr. Chunjiang An), PhD Student, Gina Cody School of Engineering and Computer Science, Concordia University, 2019-

  Thesis Subject: Applications of Equilibrium Modeling & Game Theory in Biomass Supply Chain Management

- *Seyedeh Mahya Seyedan* (Co supervised with Prof. Chun Wang), PhD Student, Gina Cody School of Engineering and Computer Science, Concordia University, 2018-

  Thesis Subject: Demand Forecasting in Supply Chain Management using BigData Analytics

- *Amir Rafati Sokhangoo*, PhD Student (Co-supervised with Dr. Fuzhan Nasiri), GinaCody School of Engineering and Computer Science, Concordia University, 2017-

  Thesis Subject: Modeling, Simulation and Optimization of Biomass SupplyChains

- *Daocheng Yang*, PhD Student (Co-supervised with Prof. Yong Zeng), Gina Cody School of Engineering and Computer Science, Concordia University, 2017-

  Thesis Subject: Team Creativity Modeling using System Dynamics

**MASc Students (thesis-based)**

- *Saghar Sadaghiani* (Co-supervised with Dr. Zhi Chen), Gina Cody School of Engineering and Computer Science, Concordia University, 2021-
  Thesis Subject: Life Cycle Analysis of Bioenergy Production

- *Foad Esmaeili* (Co-supervised with Dr. Fuzhan Nasiri), Gina Cody School of Engineering and Computer Science, Concordia University, 2019-
  Thesis Subject: Biomass Supply Chain Resilience

- *Shohreh Khodami* (Co-supervised with Prof. Yong Zeng), Gina Cody School of Engineering and Computer Science, Concordia University, 2019-2021 (graduated)
  Thesis Subject: System Dynamics Simulation of Bioenergy Supply Chains for Remote Communities

- *Sahar Esmaeelzadeh*, MSc Student, Gina Cody School of Engineering and Computer Science, Concordia University, 2016-2018 (graduated).
  Thesis Subject: Agent-based Modeling and Simulation of Biomass Sourcing for Northern Communities

**MASc and MBA Students (course-based final projects)**

- *Denis Nevmitulin*, MSc in Logistics and Supply Chain Management, University of Greenwich, London, UK, 2013-2014 (graduated).
  Project Title: Collaboration between Supply Chain Participants: An Emerging Paradigm of Business Relationship and Role of Information Technology.

- *Michael Moshiri*, MSc in Logistics and Supply Chain Management, University of Greenwich, London, UK, 2012-2013 (graduated).
  Project Title: A Case study analysis of the relative cost effectiveness of providing 'pre specified delivery time windows' in a B2C online retailing

- *Yu-Jui Chang*, MSc in Logistics and Supply Chain Management, University of Greenwich, London, UK, 2012-2013 (graduated).
  Project Title: Implementing the RL System in Electronic Industry

- *Juan David Paz Nieves*, MSc in Logistics and Supply Chain Management, University of Greenwich, London, UK, 2012-2013 (graduated).
  Project Title: Developing warehousing management strategies in the Procter & Gamble Distribution Centre México

- *Emmanuel Egbo*, MSc in Logistics and Supply Chain Management, University of Greenwich, London, UK, 2011-2012 (graduated).
  Project Title: The Effect of Integrating E-procurement in the UK Public Sector Procurement Systems

- *Maria Manriquez Torres*, MSc in Logistics and Supply Chain Management, University of Greenwich, London, UK, 2011-2012 (graduated).
  Project Title: Drivers and Barriers for Green Supply Chain Practices in Small and Medium-size Enterprises in Mexico

- *Mehmet Koyuncu*, MBA, University of Greenwich, London, UK, 2013-2014(graduated).
  Project Title: Analysing Impact of Distribution Performance over General Supply Chain Performance in Turkey through Fuzzy Analytic Hierarchy Process

- *Claire Tye*, MBA, University of Greenwich, London, UK, 2011-2014 (graduated).
  Project Title: Minimising supply chain risk when obsolescing product from itshost plant

- *Shiraz Noorani*, MBA, University of Greenwich, London, UK, 2011-2012(graduated).
  Project Title: An AHP Based Methodology for Business Process Outsourcing ofa Contact Centre

Teaching

**@ENAP**
Gestion de projets

**@Concordia University**
Principles of Systems Engineering
Quality Assurance in Supply Chain Management
Risk Analysis
Total Quality Project Management
Engineering Management Production Engineering
Lean Manufacturing

**@University of Greenwich**
Project Planning and Control
Advanced Project ManagementOperations Management
Supply Chain Modeling and Analysis
Quantitative Methods
Creativity, Decision Making, and Innovation

**@Yale University**
Green Supply Chain Management

Certificates

Postgraduate Certificate in Teaching and Learning in Higher Education (PGCert),Higher Education Academy, UK 2012

Teaching & Learning in Higher Education, McGill University, Montreal, Canada,2008

Teaching Development Certificate, Teaching Development Center, University ofRegina, Canada 2005

Professional Services

**Editorial Activities**

Guest Editor, Special Issue: Modeling and Analysis of Biomass-to-Energy Supply Chains, Energies Journal, 2021-2022.


**Reviewer (Journals and Conferences)**
Annals of Operations Research.
European Journal of Operational Research.
International Journal of Production Economics.
International Journal of Production Research.
Journal of Cleaner Production.
Journal of Production Planning & Control.
Journal of Information Sciences.
Journal of Energies
International Journal of Energy Research
Biomass and Bioenergy
Sustainable Cities and Society
Academy of Management Learning & Education Journal.
International Journal of Management Science and Engineering Management.
Journal of Computational Management Science.
The Decision Sciences Institute Annual Conference
36th International Symposium on Automation and Robotics in Construction (ISARC), May 21-24, 2019, Banff, AB, Canada.

**Organizing**
Session Chair, Data Analytics & Optimization in Public Sector, Institute for Operations Research and Management Sciences (INFORMS) 2022 International Conference, Vancouver, Canada, June 5-8, 2022.

Member, Program Technical Committee, IEEE International Symposium on Technology and Society (ISTAS), 28-31 October, 2021.

Program Committee member and panelist, SDPS (Society for Design and Process Science) 2020, 25th anniversary - First online conference, November 18-20, 2020.

Track Chair, 7th CSCE Construction Specialty/CRC Conference, June 12-15 2019,Laval, QC.

Session Chair, Supply Chain Modelling, INFORMS 2019 International Conference,June 9-12, 2019, Cancun, Mexico.

Session Chair, Sustainable Supply Chain, The OR56 Conference, The OR Society,September 9-11, 2014, Surrey, UK.

Session Chair, Manufacturing stream, YoungOR18 Conference, The OR Society,April 9-11, 2013, Exeter, UK.

Session Chair, New Product Development and Project Management track, The 40th Decision Sciences Institute Annual Conference, November 14-17, 2009, New Orleans, USA.

**Funding Agencies Committees/Proposal Reviews**

Committee Member, Visage Municipal, Fonds de recherché du Québec - Nature et technologies (FRQNT)

Reviewer, Canadian Agri-Food Automation and IntelligenceNetwork (CAAIN)

Reviewer, UK ESRC Research Council


Institutional Services

Examiner (Graduate Examination Committees) - as of December 2021: Served on18 Master's and 9 PhD Examinations

Member, Dean's Committee on Engineering, Technology and Societal Transformation, Gina Cody School of Engineering and Computer Science, 2019-2020.

Member, Departmental Curriculum Committee, Concordia Institute for InformationSystems Engineering (CIISE), 2018-2021.

Member, Teaching & Learning Committee, Concordia Institute for Information Systems Engineering (CIISE), 2018-2021

Founding Member, Sustainability, Technology and Innovation Research Group (STIR), University of Greenwich, 2011-2014.


In Media

Invited Speaker, Digital Strategy Speaker Series (Ask Us about AI), Office of Research, Concordia University: https://www.concordia.ca/next-gen/digital-strategy/speakers-series.html , 2020


Professional Membership

Canadian Operational Research Society (CORS)
Association for Information Systems (AIS)
Institute for Operations Research and the Management Sciences (INFORMS)
Project Management Institute (PMI)
Association of Professional Engineers and Geo-scientists (APEGS)


Industry Experience

Data Analyst, National Organization for Educational Planning, Tehran, Iran, 2002-2003

Systems Analyst, Systems Automation & Productivity Research Center, SharifUniversity of Technology, Tehran, Iran, 2001-2002

Quality Assurance Expert, Iran Standards & Quality Inspection Co. (ISQI), Tehran,Iran, 2000-2001