

## **Fereshteh Mafakheri, PhD, PEng**

Assistant Professor (Aff.),  
Department of Building, Civil, and Environmental Engineering (BCEE)

Extended Term Faculty (ETA),  
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Explore Concordia: <http://explore.concordia.ca/fereshteh-mafakheri>

### **Education**

PhD in Decision Sciences (2011)  
HEC (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

### **Academic Experience**

Assistant Professor (Aff.), Department of Building, Civil, and Environmental Engineering (BCEE), Gina Cody School of Engineering and Computer Science, Concordia University, Montreal, QC, Canada 2018-

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-

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

Instructor (Part-time Faculty), Gina Cody School of Engineering and Computer Science, Concordia University, Montreal, QC, Canada 2014-2016

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

## **Funding and Grants**

-Faculty Research Support (FRS) fund, Gina Cody School of Engineering and Computer Science, Concordia University, Role: PI, 2019-2020 (\$32,500)

-NSERC Discovery Grant, Natural Science and Engineering Research Council of Canada (NSERC), Role: PI, 2019-2024 (\$110,000)

- Capital Research Innovation Grant (Digital Supply Chains), Gina Cody School of Engineering and Computer Science, Concordia University, Role: Co-PI, 2018 (\$100,000)

-Faculty Research Support (FRS) fund, Gina Cody School of Engineering and Computer Science, Concordia University, Role: PI, 2018-2019 (\$20,000)

-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)

## **Scholarships, Fellowship and Awards**

-Runner-up, University Early Career Research Award, University of Greenwich, 2013

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

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

- FQRNT PhD Scholarship, Le Fonds Québécois de la Recherche sur la Nature et les 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 300,000 participants, Iran (1996)

### **Teaching Experience (2010-present)**

- Principles of Systems Engineering, Concordia University
- Quality Assurance in Supply Chain Management, Concordia University
- Risk Analysis, Concordia University
- Total Quality Project Management, Concordia University
- Engineering Management, Concordia University
- Production Engineering, Concordia University
- Lean Manufacturing, Concordia University
- Project Planning and Control, University of Greenwich
- Advanced Project Management, University of Greenwich
- Operations Management, University of Greenwich
- Supply Chain Modeling and Analysis, University of Greenwich
- Quantitative Methods, University of Greenwich
- Creativity, Decision Making, and Innovation, University of Greenwich
- Green Supply Chain Management, Yale University

### **Teaching 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 of Regina, Canada 2005

### **Service**

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

Member, Departmental Curriculum Committee, Concordia Institute for Information Systems Engineering (CIISE), 2018-

Examiner (Graduate Examination Committees) - as of July 2020: Served on **15** MSc and **5** PhD Examinations

Reviewer (Journals and Conferences):

Annals of Operations Research.  
European Journal of Operational Research.  
International Journal of Production Economics.  
International Journal of Production Research.  
Production Planning & Control  
Journal of Cleaner Production.  
Journal of Information Sciences.  
Academy of Management Learning & Education Journal.  
International Journal of Management Science and Engineering Management.  
Journal of Computational Management Science.  
The Decision Sciences Institute Annual Conferences

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

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

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 40<sup>th</sup> Decision Sciences Institute Annual Conference, November 14-17, 2009, New Orleans, USA.

Proposal Reviewer for the UK ESRC Research Council, 2013 -.

## **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)

## **Publications**

### **Journal Papers:**

- Mafakheri, F.**, Adebajo, 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-inpress (Impact Factor: 4.577).
- Seyedan, M., **Mafakheri, F.** (2020) Predictive Big Data Analytics for Supply Chain Demand Forecasting: Methods, Applications, and Research Opportunities, *Journal of Big Data*, 7:53, 1-22 (Impact Factor: 2.501)
- Nasiri, F., and **Mafakheri, F.**, Adebajo, D., Haghghat, F. (2017). "Modeling and Analysis of Renewable Heat Integration into Non-Domestic Buildings - The Case of Biomass Boilers: A Whole Life Asset-Supply Chain Optimization Approach Using System Dynamics", *Biomass and Bioenergy*, 95, 244-256 (Impact Factor: 3.537).
- D. Adebajo, 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: 1.560).
- 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.
- F. Nasiri and **F. Mafakheri** (2015). "Higher Education Lecturing and Humor: From Perspectives to Strategies", *Higher Education Studies*, 5 (5), 25-31.
- A. Genus and **F. Mafakheri** (2014). "A Neo-institutional Perspective of Supply Chains and Energy Security: Bioenergy in the UK", *Applied Energy*, 123, 307-315.
- F. Mafakheri** and F.Nasiri. (2014). "Modeling of Biomass-to-Energy Supply Chain Operations: Applications, Challenges and Research Directions", *Energy Policy*, 67, 116-126.
- F. Mafakheri** and F. Nasiri. (2013). "Revenue Sharing Coordination in Reverse Logistics", *Journal of Cleaner Production*, 59, 185-196.
- 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.
- 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.

**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.

**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), 200-206.

### **Conferences:**

**Mafakheri, F.** “A Comparative Analysis of Cooperative and Non-cooperative Bioenergy Supply Chain Coordination for Northern Canada”, INFORMS International Conference, Cancun, Mexico, June 9-12, 2019.

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.

**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

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.

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.

**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.

**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.

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

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

**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.

**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.

**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**

*Zahra Vazifeh*, 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

*Mahya Seyedan*, PhD Student, Gina Cody School of Engineering and Computer Science, Concordia University, 2018-

Thesis Subject: Demand Forecasting in Supply Chain Management using Big Data Analytics

*Daocheng Yang*, PhD Student, Gina Cody School of Engineering and Computer Science, Concordia University, 2017-

Thesis Subject: Team Creativity Modeling using System Dynamics

*Amir Rafati Sokhangoo*, PhD Student, Gina Cody School of Engineering and Computer Science, Concordia University, 2017-

Thesis Subject: Modeling, Simulation and Optimization of Biomass Supply Chains

### **Master's students**

Foad Esmaeili, MSc Student, Gina Cody School of Engineering and Computer Science, Concordia University, 2019-

Thesis Subject: TBA

*Shohreh Khodami*, MSc Student, Gina Cody School of Engineering and Computer Science, Concordia University, 2019-

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

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

Mehmet Koyuncu, MBA, Analysing Impact of Distribution Performance over General Supply Chain Performance in Turkey through Fuzzy Analytic Hierarchy Process, 2013-2014 (graduated).

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

Yu-Jui Chang, MSc in Logistics and Supply Chain Management, Thesis Title: Implementing the RL System in Electronic Industry, 2012-2013 (graduated).

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

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

Maria Manriquez Torres, MSc in Logistics and Supply Chain Management, Thesis Title: Drivers and Barriers for Green Supply Chain Practices in Small and Medium-size Enterprises in Mexico, 2011-2012 (graduated).

Claire Tye, MBA, Thesis Title: Minimising supply chain risk when obsolescing product from its host plant, 2011-2014 (graduated).

Shiraz Noorani, MBA, Thesis Title: An AHP Based Methodology for Business Process Outsourcing of a Contact Centre, 2011-2012 (graduated).

## **Professional Experience**

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

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

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