# Curriculum Vitae

## Mahsa Madani Hosseini

Assistant Professor at Global Management Studies
Ted Rogers School of Management | Toronto Metropolitan University
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## RESEARCH INTERESTS

**Context:** Data analytics with applications in: health care, sustainability & environmental management, and business management.
**Methodology:** Optimization, Game Theory, Statistical Modeling, and Data Science Methods: descriptive, predictive, and prescriptive methods using machine learning algorithms.

## ACADEMIC/PROFESSIONAL EXPERIENCE

- **Toronto Metropolitan University**
  Ted Rogers School of Management
  Assistant Professor, Department of Global Management Studies

  Toronto, ON
  July 2020 – Present

- **Toronto Metropolitan University**
  Lecturer, Department of Global Management Studies
  Courses: Linear Algebra, Applied Mathematics for Business, Applied Statistics for Business, Project Management

  Toronto, ON
  Fall 2017 – June 2020

- **Concordia University**
  Lecturer, Department of Building, Civil, and Environmental Engineering
  Course: Engineering Aspect of Chemical and Biological Process

  Montreal, QC
  Fall 2016 – Winter 2017

## EDUCATIONAL BACKGROUND

- **Concordia University**
  **PhD, Civil and Environmental Engineering**
  Minor: Statistics and System Dynamics

  Montreal, QC
  Sep. 2011 – Oct. 2015

- **Toronto Metropolitan University**
  **Certificate in Project Management**
  Raymond Chang School of Continuing Education

  Toronto, ON
  Sep. 2017 – Dec. 2018

- **University of Tehran**
  **Master of Soil and Water Engineering**
  *Removal of Lead and Zinc from Alkaline Soil by Enhanced Electrokinetic*

  Tehran, Iran
  Sep. 2006 – Dec. 2008

- **Ferdowsi University of Mashhad**
  **Bachelor, Agricultural Engineering, Soil Science**
  *The Role of Eucalyptus on Reclamation of Saline Soil*

  Mashhad, Iran
  Sep. 2002 – July 2006

| **REFEREED JOURNAL PAPERS** | **Journal Ranking[1] Impact Factor** | **Status** |
|---|---|---|
| [J1] **Mahsa Madani Hosseini**, Manaf Zargoush, Somayeh Ghazalbash. *Climate Crisis Risks to Elderly Health: Strategies for Effective Promotion and Response*. (2024). ***Health Promotion International.*** *39(2) p.daae 031.* | ▪ **"A"** on ABDC list | **Published** |
| [J2] **Mahsa Madani Hosseini**, Jafar Heydari, Saeed Beheshti, Maryam Zangiabadi, Manaf Zargoush, *Elderly Care Facility Location in the Face of the Climate Crisis: A Case Study in Canada*. (2024). ***International Journal of Disaster Risk Reduction.*** | ▪ **"A"** on ABDC list | **Accepted** for publication |
| [J3] Elham Shaker Ardakani a, Niloofar Gilani Larimib, Maryam Oveysi Nejadb, **Mahsa Madani Hosseini,** Manaf Zargoush. (2023). *A Resilient, Robust Transformation of Healthcare Systems to Cope with COVID-19 through Alternative Resources*. Journal: ***OMEGA***. 114. p.102750. | ▪ "A" on ABDC list | **Published** |
| [J4] Amirhossein Ranjbar, Jafar Heydari, **Mahsa Madani Hosseini**, Davood Yahyavi**.** *Green channel coordination under asymmetric information.* (2021). ***Annals of Operations Research.*** 1-34. | ▪ **"A"** on ABDC list | **Published** |
| [J5] **Mahsa Madani Hosseini,** Gunawardena Egodawatte, Nursel Server Ruzgar. (2021). *Online assessment in a business department during COVID-19: Challenges and practices, **The International Journal of Management Education**. 19(3).* | ▪ "C" on ABDC List | **Published** |
| [J6] **Mahsa Madani Hosseini**, Manaf Zargoush, Farrokh Alemi, Raya Kheirbek. (2020), *Optimal Outcome-Based Recommendations: Feasibility of "Big Data" Analysis to Help an Individual Patient*, ***Journal of Big data,*** 7, 1-24. | ▪ Impact Factor: 8.1 | **Published** |
| [J7] **Mahsa Madani Hosseini**, Suzelle Barrington, Catherine Mulligan. (2016) *Acidification of In-Storage Psycrophilic Anaerobic Digestion (ISPAD) of Manure to Reduce Ammonia Volatilization: Model Development and Validation.* **Waste Management**. 52, 104-111. | ▪ Impact Factor: 8.1 | **Published** |
| [J8] **Mahsa Madani Hosseini**, Suzelle Barrington, Catherine Mulligan (2015), *In-Storage-Psychrophilic-Anaerobic-Digestion (ISPAD) process. Part I: Model Development and* | | **Published** |

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[1] All journal rankings are according to Scientific Journal Rankings – SJR.

*Calibration.* **Environmental Management and Sustainable Development**. 4(2), 165-192.

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|---|---|---|
| [J9] **Mahsa Madani Hosseini**, Suzelle Barrington, Catherine Mulligan (2015), *In-Storage-Psychrophilic-Anaerobic-Digestion (ISPAD) process. II: Model Validation.* **Environmental Management and Sustainable Development**. 4(2), 193-203. | | **Published** |
| [J10] **Mahsa Madani Hosseini,** Catherine Mulligan, Suzelle Barrington (2014), *Psychrophilic Anaerobic Digestion Applied to ISPAD: Microbial Kinetics Values.* **Journal of Environmental Management**, 146, 59-68. | ▪ **"A"** on ABDC list | **Published** |
| [J11] **Mahsa Madani Hosseini**, Yixin Shao and Joann Whalen (2011), *Biocement Production from Silicon-Rich Plant Residues in Canada: Perspectives and Future Potential.* **Biosystems Engineering**. 110 (4). 351-362. | ▪ Impact Factor: 5.1 | **Published** |
| [J12] **Mahsa Madani Hosseini.** (2020), *A Decision Support Contract for Cost-Quality Trade-Offs in Project Management under Information Asymmetry*, **International Journal of Business and Management.** 15(4), 112-128. | | **Published** |

## PAPERS IN REVIEW/UNDER REVISION

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|---|---|---|
| [R1] Mohammad Nikoofal, Long Gao, Wei Zhang, **Mahsa Madani Hosseini**, Optimal Sales Contracts for Endogenous Market Growth, status: Revise & Resubmit. Journal: **Marketing Science.** | ▪ Financial Times top-50 Journal list<br>▪ "**A\***" on ABDC list | Reject & Resubmit |
| [R2] Mohammad Nikoofal, Manaf Zargoush, **Mahsa Madani Hosseini**, Mehmet Gumus. Public Incentives for Private Sector Investment in Cybersecurity, status: Revise & Resubmit. Journal: **Production & Operations Management**. | ▪ Financial Times top-50 Journal list<br>▪ "**A\***" on ABDC list | Reject & Resubmit |
| [R3] Manaf Zargoush, Somayeh Ghazalbash, **Mahsa Madani Hosseini**, Farrokh Alemi. *Personalized Medication Prescription Strategies for Diabetes: An ML-Driven Predictive-Prescriptive Approach.* Journal: **OMEGA.** | ▪ "A" on ABDC list | Under 2nd round of review |
| [R4] Pooya Rafiei, Jafar Heydari, Mahsa Madani Hosseini. Driving Sustainable Supply Chains: Empowering Social Responsibility and Environmental Excellence amid Uncertainty. Journal: **Benchmarking: An International Journal**. | ▪ "**B**" on ABDC list | Under 2nd round of review |

## WORKING PAPERS

[W1]      Manaf Zargoush, Somayeh Ghazalbash, **Mahsa Madani Hosseini**, Cari Levy, Allison Williams, Farrokh Alemi, *A Data-Driven Analytical Model for Predicting Death from functional disability? A longitudinal study*.

Model formulation and analysis are done

## CONFERENCE PROCEEDINGS

[C1]      **Mahsa Madani Hosseini**, Manaf Zargoush, Farrokh Alemi, *A Data-Driven Analytical Model for Predicting Functional Loss and Recovery Among Older Adults*, ***Proceedings of the International Conference on Industrial Engineering and Operations Management****,* Toronto, Canada, October 2019.

**Published**

[C2]      **Mahsa Madani Hosseini**, *Incentive Contracts in Project Management under Contractor's Process Improvement,* ***Proceedings of the International Conference on Industrial Engineering and Operations Management****,* Toronto, Canada, October 2019.

**Published**

[C3]      **Mahsa Madani-Hosseini,** Suzelle Barrington, Catherine Mulligan (2014), *Acidification of In-Storage Psychrophilic Anaerobic Digestion (ISPAD) of Manure to Reduce Ammonia Volatilization.* ***Proceedings of American Society of Agricultural and Biological Engineers (ASABE)****.* Canada.

**Published**

[C4]      **Mahsa Madani Hosseini**, Mohsen Farahbakhsh, Gholamreza Savaghebi (2011), ***Proceedings of International Conference on Environment Science and Engineering.*** *IPCBEE (Vol.8). Singapore*

**Published**

## MEDIA COVERAGE

- Based on Publication [J2]. *Climate crisis risks to elderly health: strategies for effective promotion and response:* https://experts.mcmaster.ca/display/publication3411026 (Last accessed April 2024).
- Based on publication [J10]. *Burn-free cement innovation taking root in research*. September 2016: https://canada.constructconnect.com/dcn/news/technology/2016/09/burn-free-cement-innovation-taking-root-in-research-1018811w (Last accessed April 2024).

## TEACHING EXPERIENCE

- **Toronto Metropolitan University**          Toronto, ON
  Courses taught: QMS102 (Business Statistics I), QMS110      Fall 2020 – Present
  (Applied Mathematics for Business), QMS210 (Applied Statistics for Business)

- **Ryerson University** — Toronto, ON
  Instructor — Fall 2017 – Winter 2019
  Courses taught: QMS102 (Business Statistics I), QMS110 (Applied Mathematics for Business), QMS210 (Applied Statistics for Business), QMS522 (Linear Algebra), GMS450 (Project Management)
  Department of Global Management Studies
- **Concordia University** — Montreal, QC
  Instructor — Fall 2016 – Winter 2017
  Course taught: CIVI466 (Engineering Aspect of Chemical and Biological Process)
  Department of Building, Civil, and Environmental Engineering

## GRANTS AND AWARDS

[G1]  Toronto Metropolitan University, TRSM Research Advancement Grant, 2022–2023, $15,000. Role: **Principal Investigator**. Status: Awarded.

[G2]  Toronto Metropolitan University, TRSM Research Development Grant, 2021–2023, $7,000. Role: **Principal Investigator**. Status: Awarded.

[G3]  SSHRC Insight Development Grant – 2022, Title: Elderly Care Facility Network Design under Climate Change Disasters. Amount Requested: $57,800. Role: **Principal Investigator**. Status: Rejected.

[G4]  CIHR Action Grants - 2022, Canadian Cancer Society, Title: Artificial intelligence-driven intervention for physical activity in primary cancer prevention. Role: **Co-PI**. Amount Requested: $200,0000. Status: Rejected[2].

[G5]  ERA (Early Researcher Award) of the provincial research grant in Ontario, Round 17. Title: Elderly Care Facility Network Design under Climate Change Disasters. Amount Requested: $190,0000. Result: Rejected.

[G6]  Concordia University, Nominee for Governor General's Gold Medal for the most outstanding academic record as a doctoral student

[G7]  Concordia University, Conference Award, 2014

[G8]  Concordia University, Accelerator Award, 2014

[G9]  Concordia University, Mobility Award, 2014

[G10] Concordia University Partial Tuition Remission Award, Summer 2013-Winter 2014

[G11] Concordia University Full Tuition Recruitment Award, September 2011 – August 2012

## INVITED TALKS AND CONFERENCE PRESENTATIONS

- Mahsa Madani Hosseini, Manaf Zargoush, Maryam Zangiabadi. Elderly Care Facility Network Design in Response to Climate Change Disasters. **CORS/INFORMS International Conference.** June 2022. Vancouver. Canada
- Mahsa Madani Hosseini, Manaf zargoush, Farrokh Alemi. *A Data-Driven Analytical Model for Predicting Functional Loss and Recovery Among Older Adults*. **IEOM**. October 2019, Toronto, Canada
- Mahsa Madani Hosseini. *Incentive Contracts in Project Management under Contractor's Process Improvement*. **IEOM**. October 2019, Toronto, Canada.

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[2] Amount of Funds Requested: $200,000.00. There were 28 funded applications out of 58 submissions. Our grant application ranked 29.

- Mahsa Madani Hosseini. *Acidification of digestate from anaerobic digestion system to reduce ammonia volatilization. September 2015.* **CBQF: Católica Porto, Biotecnologia.**
- Mahsa Madani Hosseini, Suzelle Barrington, Catherine Mulligan. *Dynamic simulation of In-Storage-Psychrophilic- Anaerobic Digestion to treat swine manure.* **CSCE Annual Conference,** May 2014, Halifax, Canada.
- Mahsa Madani Hosseini, Suzelle Barrington, Catherine Mulligan. *Acidification of In-Storage Psycrophilic Anaerobic Digestion (ISPAD) of Manure to Reduce Ammonia Volatilization.* **ASABE Annual International meeting**. July 2014, Montreal, Canada.
- Mahsa Madani Hosseini & Mohsen Farahbakhsh, "*Removal of zinc from a polluted soil by enhanced electrokinetic*", presented in **11th Conference of Soil Science**, July 2009, Gorgan, Iran.