

**CURRICULUM VITAE**  
**STEVEN DAVID FORMANECK**  
**ASSISTANT PROFESSOR OF OPERATIONS AND SUPPLY**  
**CHAIN MANAGEMENT**

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**EDUCATION**

Ph.D. 2009, University of Waterloo  
Major: Management Sciences

Masters of Mathematics 2004, University of Waterloo  
Specialization: Combinatorics & Optimization

Bachelor of Arts (with distinction) 2002, University of Minnesota, Morris  
Majors: Computer Science, Mathematics, & Statistics

Certificate in University Teaching 2009, University of Waterloo

**ACADEMIC WORK EXPERIENCE**

2020-Present, Assistant Professor/Program Director of Operations and Supply Chain Management, Canadian University Dubai (CUD), Dubai, UAE

2016-2020, Assistant Professor of Supply Chain Management, American University of Sharjah, UAE

2015-2016, Associate Professor of Decision Sciences, American University in Dubai, UAE.

2009-2015, Assistant Professor of Operations Management, American University in Cairo, Egypt.

2009-2009, Visiting Assistant Professor, Konkuk University, Seoul, Korea.

2007-2007, Adjunct Lecturer, University of Waterloo, Waterloo, Ontario, Canada

**COURSES TAUGHT**

MBA	Operations and Supply Chain Management Project Management Quantitative Analysis for Management
Undergraduate	Business Process Simulation Engineering Economics Global Supply Chain Management Logistics Management Logistics and Transportation Management Operations Management Procurement and Supply Management Quality and Lean Management Strategic Operations and Supply Chain Management (Capstone) Supply Chain Information Technology Supply Chain Management Supply Chain Risk Management Sustainable Supply Chains

## INTELLECTUAL CONTRIBUTIONS

### Refereed Journals

Liu, J. & Formanek, S. (2022). “Mathematical analysis of civil litigation and empirical research of corporate governance”, *Applied Mathematics and Nonlinear Sciences*, <https://doi.org/10.2478/amns.2022.1.00003>

Qazi, A., Simsekler, M.C.E., Formanek, S. (2022) “Supply Chain Network Value at Risk Assessment using Bayesian Belief Networks and Monte Carlo Simulation”, *Annals of Operations Research*, <https://doi.org/10.1007/s10479-022-04598-3>

Qazi, A., Simsekler, M.C.E., Formanek, S. (2022) “Impact Assessment of Country Risk on Logistics Performance using a Bayesian Belief Network Model”, *Kybernetes*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/K-08-2021-0773>

Qazi, A., Shamayleh, A., El-Sayegh, & Formanek, S. (2021) “Prioritizing Risks in Sustainable Construction Projects Using a Risk Matrix-Based Monte Carlo Simulation Approach”, *Sustainable Cities and Societies*, Vol. 65, Article 102576.

Nasr, F., Pateiro M., Rabiei, V., Razavi, F., Formanek, S., Gohari G, Lorenzo J.M. (2021) “Chitosan-Phenylalanine Nanoparticles (Cs-Phe Nps) Extend the Postharvest Life

of Persimmon (*Diospyros kaki*) Fruits under Chilling Stress.” *Coatings*, Vol. 11, Issue 7, Article 819.

Luo, X., Feng, J., and Formanek, S. (2021) “The influence of linear feedback control suppression under the calculation of fractional financial system on the upgrading of high-tech industries”, *Mathematical Biosciences and Engineering*, Vol. 18, Issue 5, pp. 5114-5124.

Formanek, Steven D. (2019). “A Study of Sustainable Facility Management from a Green Supply Chain Perspective in the United Arab Emirates.” *Journal of Turkish Operations Management*, Vol. 3, No. 2, pp. 314-323.

Formanek, Steven D. (2018). "Success Factors in Pharmaceutical and Biotechnology Firm Alliances." *International Journal of Management*, vol. 1.

Formanek, Steven D. & Cozzarin, Brian P. (2013), “Technology adoption and training practices as a constrained shortest path problem”, *Omega*, Vol. 41, No. 2, pp. 459-72.

Percival, Jennifer C., Cozzarin, Brian P., & Formanek, Steven D. (2013), “Return on investment for workplace training: the Canadian experience”, *International Journal of Training & Development*, Vol. 17, No. 1, pp. 20-32.

Formanek, Steven D. (2013), "Skyscrapers and Economic Strategy and Development: The Case of Bahrain’s Proposed Murjan Tower," *Journal of Economics, Business and Management*, vol. 1, no. 4, pp. 350-354.

Formanek, Steven D. (2013), “Math software in the classroom: Pros, cons, and Tips for Implementation”, *International Journal of Pedagogical Innovations*, Vol. 1, No. 1, pp. 11-14.

Formanek, Steven D. (2013), “Women Entrepreneurs in Egypt: Lessons in growing a business”, *International Journal of Global Business and Economics*, Vol. 5, No.1.

Formanek, Steven D. (2012), “Path to Success: Human Resource Management Decision-Making”, *Journal of Law and Social Sciences*, Vol. 1, No. 1, pp. 127-132 (JLSS - ISSN: 2251-2853, E-periodical: 2251-2861).

#### Refereed Proceedings/Presentations

Formanek, Steven D., “Biotechnology Start-ups and Linkages with Large Pharmaceutical Companies”, Proceedings of the International Conference on Management, Economics and Social Sciences (ICMESS) (December 2011).

Formanek, Steven D., “Technology and the Growth of the Manufacturing Firm”, Proceedings of the IEEE International Technology Management Conference (ITMC) (June

2011).

Formanek, Steven D., "Development of a Hierarchical Decision Method for Both Multiple Uncertain Decision Problems and Problems with Continuous Decision States and Infinite or Continuous Decision Solutions", Proceedings of The International Conference and Exhibition on Knowledge-Based Business, Industry and Education (KBIE) (January 2011).

Formanek, Steven D., "The Use of Mathematical Software in Undergraduate Education", Proceedings of The International Conference and Exhibition on Knowledge-Based Business, Industry and Education (KBIE) (January 2011).

Formanek, Steven D., "Human Resource Management Decision-Making Using a Constrained Shortest Path Approach", Proceedings of The International Conference and Exhibition on Knowledge-Based Business, Industry and Education (KBIE) (January 2011).

Formanek, Steven D. and Cozzarin, Brian P., "Optimization of Canadian Technology and Innovation Adoption Strategies as a Constrained Shortest Path Problem", Proceedings of the 40th Annual Meeting of the Decision Sciences Institute (November 2009).

Formanek, Steven D. and Cozzarin, Brian P., "Optimal Training and Technology Decision-Making Via a Constrained Shortest Path Problem", Proceedings of the 40th Annual Meeting of the Decision Sciences Institute (November 2009).

Formanek, Steven D. and Cozzarin, Brian P., "Technology and Business Practice Adoption as a Constrained Shortest Path Problem", Proceedings of the Portland International Center for Management of Engineering and Technology (PICMET '09) Annual Meeting (August 2009).

#### Refereed Paper Presentations

Formanek, Steven; Lutfi, Ahmad. "Operations and Supply Chain Management Games and Simulation in Higher Education: A Critical Look", AUSSRE 3<sup>rd</sup> International Conference in Economics, Business, Social Sciences and Humanities (IBSH), Sydney, Australia, January 11-12, 2020.

Formanek, Steven. "Application of Chaos Theory to Reverse Logistics and Closed-Loop Supply Chain Optimization." Paper presented at the International Symposium on Strategic Research Directions in Economics, Business & Social Sciences (SEBS), Kuta Bali, Indonesia, March 23-24, 2018.

Formanek, Steven. "Success Factors in Pharmaceutical and Biotechnology Firm Alliances." Paper presented at the 06th International Conference on Business Management and Economics (ICBME2017), Colombo, Sri Lanka, December 22, 2017.

Percival, Jennifer C, Steven D. Formanek and Jichen Zhang, "Complementarity and the Impact of Training in the Service Sector", Annual Tokyo Business Research Conference (April 2017).

Formanek, Steven, "Structural Equation Modelling to Determine Direct and Indirect Effects of Financing and other Factors for Successful Innovations in Canada," 21st EBES Conference (2017).

Formanek, Steven D., "The use of sequence-specific alignment methods in change management", International Conference on Global Business, Economics, and Social Sciences (June 2015).

Formanek, Steven. D., "Bottleneck Analysis Optimization Using Necessary Constraint Detection Techniques", Eurasia Business and Economics Society (EBES) Conference (January 2015).

Formanek, Steven D., "Telecommunications Pricing in Egypt", Global Conference on Business and Finance (GCBF) (May 2014).

Percival, Jennifer C., Formanek, Steven D., and Zhang, Jichen, "Optimizing the Link Between Training Practices to the Service Sector", 7th ISDSI & 5th OSCM International Conference (December 2013).

Formanek, Steven D., "Skyscrapers & Economic Strategy and Development, the Case of Bahrain's Proposed Murjan Tower", International Conference on Computer and Business Management (June 2013).

Formanek, Steven D., "Women Entrepreneurs in Egypt: Lessons in Growing a Business", GBDI 18th International Conference for Business & Economics (March 2013).

Formanek, Steven D., "Betting against your rivals: A look at a strategy to increase venture capital fund returns", Eurasia Business and Economics Society (EBES) Conference (May 2012).

Formanek, Steven D., "Effectiveness of Technology-Based Hedge Fund Strategies on Venture Capital Returns", IEEE International Technology Management Conference (ITMC) (June 2011).

Formanek, Steven D., "Halton Sequences and the Semidefinite Stand and-Hit Method for the Detection of Necessary Linear Matrix Inequalities in Semidefinite Programming Problems", Decision Sciences Institute Annual Meeting (November 2007).

Formanek, Steven D., "Complementarity of Advanced Manufacturing Technologies in Canadian Manufacturing ", Decision Sciences Institute Annual *Meeting* (November 2007).

Formanek, Steven D., "Adoption of Advanced Manufacturing Technologies as a Constrained Shortest Path Problem", *Decision Sciences Institute Annual Meeting* (November 2007).

Formanek, Steven D., Technology Adoption and the Growth of Canadian Manufacturing Firms, *University of Waterloo's Graduate Student Research Conference* (April 2007).

Formanek, Steven D., "Low Discrepancy Sequences and the Semidefinite Stand-and-Hit (SSH) Method for the Detection of Necessary Linear Matrix Inequalities in Semidefinite Programming (SDP) Problems", *University of Waterloo's Graduate Student Research Conference* (April 2005).

Formanek, Steven D., "Improving Algorithms for Detecting Linear Matrix Inequalities", *NCUR (National Conference for Undergraduate Research)*, University of Wisconsin-Whitewater (April 2002).

Formanek, Steven D., "Improving Methods for Detection of Linear Matrix Inequalities in Semidefinite Programming Problems", *University of Minnesota Morris Research Symposium* (April 2002).

Formanek, Steven D., "Improving Existing Algorithms for Detection of Linear Matrix Inequalities in Semidefinite Programming Problems", *MAA National Conference*, San Diego, CA (January 2002).

Formanek, Steven D., "Representing 2-Dimensional Traffic Cellular Automata Phenomena in a New and Simpler Way", *University of Minnesota Morris Research Symposium* (April 2001).

Formanek, Steven D., "Finding Exact Solutions to Systems of Nonlinear Partial Differential Equations", *MAA Regional Conference*, Bemidji State University (October 2000).

#### Invited Speaker

Keynote Speaker, *4<sup>th</sup> International Conference on Economics, Finance and Management Outlooks*, Dubai, UAE (December 2015).

#### **Acknowledgements in Refereed Publications:**

Alam, Md Shahedul (2011), "Technology-Scanning Capability and Market-Scanning Capability as Drivers of Product Innovation Performance", Doctoral Dissertation, University of Waterloo.

Zhang, Jichen (2009), "A Stochastic Programming Model for a Day-Ahead Electricity Market: a Heuristic Methodology and Pricing", Doctoral Dissertation, University of Waterloo.

D. Baldwin, Ü. Göktas, W. Hereman, L. Hong, R.S. Martino, and J.C. Miller (2004), "Symbolic Computation of Exact Solutions Expressible in Hyperbolic and Elliptic Functions for Nonlinear PDEs", *Journal of Symbolic Computation*, vol. 37, pp. 669-705, for my research contributions through the National Science Foundation's (NSF) Research Experiences for Undergraduates (REU) Program.

P. Ng, "Recognition and Cut-sets of Classes of Leontief Directed Hypergraphs", Proceedings of the International Network Optimization Conference (2003), for my research contributions through the Morris Academic Partnerships (MAP) Program.

## **GRANTS**

The American University in Cairo Teaching Enhancement Grant entitled: "Simulation Games in Operations Management Courses", September – May, 2014.

The American University in Cairo Pre-Tenure Leave, Research Data Center at University of Victoria, September – December, 2012.

The American University in Cairo Teaching Enhancement Grant, Case Teaching Workshop at Ivey School of Business, London, Ontario, Canada, August, 2012.

The American University in Cairo Research Development Grant entitled: "Murjan Tower: Economically Viable?", January – May, 2011.

The American University in Cairo Research Development Grant entitled: "Complementarity and Adoption of Human Resource Management Strategies Using Constrained Regression and Constrained Shortest Path Modeling Techniques", November, 2010.

The American University in Cairo Research Grant entitled: "Employee Training and Non-Wage Benefits Decisions for the Canadian Firm", June – August, 2010.

The American University in Cairo Research Grant entitled: "Development of a Heirarchical Decision Method for Both Multiple Uncertain Decision Problems with Continuous Decision States and Infinite or Continuous Decision Solutions", June – August, 2010.

The American University in Cairo Research Grant entitled: "Large-scale Results and Hybrid Methods of Reducing the Solution Space of Semidefinite Stand-and-hit Problems", June – August, 2010.

The American University in Cairo Research Grant entitled: "Analysis of CEO characteristics, firm restructuring and performance in the U.S. and Canada", September - November, 2010.

The American University in Cairo Research Grant entitled: "Effectiveness of Technology-Based Hedge Fund Strategies on Venture Capital Fund Returns", September - November, 2010.

## **AWARDS**

Best Paper Award, Annual Tokyo Business Research Conference (2017).  
Best Paper in Session Award, *Global Conference on Business and Finance* (2014).  
AUC School of Business Research Award for A\* Journal Publication (2014)  
University of Waterloo Faculty of Engineering Merit Scholarship (2005)  
International Doctoral Student Award (2004 – 2007)  
International Graduate Student Award (2002 – 2004)  
Edith Rodgers Award for outstanding undergraduate research (2002)  
Scholar of the College Award (2002)

## **SERVICE TO THE DISCIPLINE**

Reviewer for 7<sup>th</sup> International Association of Silkroad Studies (IASS) conference (2022)  
Technical Program Committee Member for 7<sup>th</sup> International Conference on Modeling, Simulation, and Applied Optimization (2017)  
Session Chair for Annual Tokyo Business Research Conference (2017)  
Session Chair for 21<sup>st</sup> EBES Research Conference (2017)  
Member of the Scientific and Review Committee, *International Conference on Economics, Finance, and Management Outlooks* (2015)  
Reviewer for Pearson textbook, Global Edition of *Contemporary Logistics* by Paul Murphy (2014)  
Reviewer for Pearson textbook, Global Edition of Chopra & Meindl's *Supply Chain Management 6e GE* (2015)  
Session Chair for 4<sup>th</sup> *International Conference on Economics, Finance and Management Outlooks*(2015).  
Session Chair (2 sessions) for *Eurasia Business and Economics Conference (EBES)* (2015)  
Session Chair for *Global Conference on Business and Finance (GCBF)* (2014).  
Session Chair for *7th ISDSI & 5th OSCM International Conference* (2013).  
Session Chair for *GBDI 18<sup>th</sup> International Conference for Business & Economics* (2013).  
Reviewer for Pearson textbook, *Operations Management: Processes and Supply Chains*, 10e, Global Edition (Krajewski).  
Reviewer for the journal, *Robotics and Computer Integrated Manufacturing* (2011-present).  
Reviewer for Decision Sciences Institute Annual Conference (2009).  
Reviewer for *European Journal of Operational Research*(2009-Present).  
Session Chair for The International Conference and Exhibition of Knowledge-Based Business, Industry and Education (2011).  
Session Chair at the Decision Sciences Institute Annual Conference (2007)

## **SERVICE TO THE ACADEMIC INSTITUTION**

### Service to the University.

Disposal Committee (2017 – 2020)  
Part of 3 committees for Masters student theses in Industrial Engineering (2016 – 2020)

Technical Program Committee Member for Seventh International Conference on Modeling, Simulation, and Applied Optimization, 2017  
Al Najah Education Fair; advising potential students; October 27th, 2017.  
Member of Conduct Council (2015 - 2016)  
Department of Management Ambassador in the Committee for Undergraduate Research (2014 – 2015).  
Committee Member, 2015 AUC Conference for Excellence in Undergraduate Research, Entrepreneurship, and Creative Achievement.  
Faculty Facilitator for First-Year-Experience (FYE) Program, August – October, 2013.  
Department Representative for Majors Fair for first year students (2011, 2013).  
Participated in the University Retreat to help develop the Academic Strategic Plan (2012)  
Participated in several university open-discussions regarding curriculum, research, and student affairs.

### Service to the School

Committee Chair – Faculty of Management Outreach and Student Recruitment Committee (2021 – Present)  
SBA Advising Roadshow; advising students on their courses for the next semester; held once each semester (2016 – 2020)  
Member of the Graduate Curriculum Committee (2016-2017)  
Faculty Advisor of the Innovative Management Club (2015-Present)  
Member of Technology Committee (2015 – Present)  
Member of the Council of the School of Business (CSB) (2013-2015)  
Member of the CSB Research Committee (2013-2015)  
Member of the assurance of learning committee (2009-2010)  
Member of committee to write-up a report for NAQAAE accreditation (2009 – 2010)  
Guided multiple MBA students for their research assistant fellowships (2010-2013)  
Participated in the School of Business Sports Days (2011, 2012, 2014)  
Invited guest speaker from the University of Waterloo to give a seminar talk to the school (2012)

### Service to the Department

Program Director – Operations and Supply Chain Management (2021 – Present)  
SCM Task Force – Program Proposal Development member (2018, 2020)  
MIS re-Branding Exercise committee member (2018)  
Critical LERT (2017-2018)  
Member of Supply Chain Management Curriculum Committee (2016-Present)  
Member of Supply Chain Management Faculty Recruitment Committee (2016-Present)  
Faculty Advisor for Management Club (2015 – 2016)  
Department Representative for Majors Fair for first year students (2011, 2013)  
Research Committee (2011-2013)  
Academic Affairs Committee (2009-2011; 2013 - Present)

Assurance of Learning Committee: Problem Solving Subcommittee (2009-2010)  
Participated in the Department of Management retreat to discuss our strategy and assess the department's SWOT and strategic plan (2010)

### **INVOLVEMENT IN PROFESSIONAL PROGRAMS, EXTENSION AND CONSULTING ACTIVITIES**

Attended several teaching-enhancement workshops through The American University in Cairo's Center for Learning and Teaching (2009 – 2015).  
Completed Ivey School of Business Case Teaching Workshop (2012).  
Completed Grenoble Faculty Training Seminar at American University in Cairo (2011).  
Consultation with Arrika Bean Bags (2011).  
Consultation with Egyptian Delivery Service (EDS) (2010).