Curriculum Vitae

Claudio Szwarcfiter

Faculty of Industrial Engineering and Technology Management
Holon Institute of Technology
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Academic Degrees

Ph.D. Industrial Engineering and Management
Technion — Israel Institute of Technology, Haifa, Israel
2021
Advisors: Prof. Avraham Shtub and Prof. Yale T. Herer

M.S. Industrial Engineering
Catholic University of Rio de Janeiro (PUC-Rio), Brazil
1995
Advisor: Prof. Paulo Roberto Tavares Dalcol

PgD. Financial Management
Getulio Vargas Foundation (FGV), Rio de Janeiro, Brazil
1992

B.S. Chemical Engineering
Federal University of Rio de Janeiro (UFRJ), Brazil
1991

Academic Appointments

Fall 2022+ Lecturer (Senior faculty member)
Faculty of Industrial Engineering and Technology Management
Holon Institute of Technology, Holon, Israel

Spring 2017+ Teaching Assistant
Faculty of Data and Decision Sciences
Technion — Israel Institute of Technology, Haifa, Israel

Fall 2022+ Guest Lecturer
Kinneret Academic College, Degania Bet, Israel

Fall 2020 – Fall 2022 Postdoctoral researcher
Department of Industrial Engineering
Tel Aviv University, Tel Aviv, Israel
Supervisors: Prof. Yossi Bukchin, Prof. Tal Raviv

Spring 2021 – Spring 2022 Teaching assistant, Lecturer
Faculty of Engineering
Ruppin Academic Center, Emek Hefer, Israel

Fall 2020 – Fall 2021	Lecturer Department of Industrial Engineering and Management Ben Gurion University, Beer Sheva, Israel
Fall 1996 – Fall 1997	Visiting Scholar The Robotics Institute Carnegie Mellon University, Pittsburgh, Pennsylvania
Fall 1995 – Spring 1996	Lecturer Department of Industrial Engineering Catholic University of Rio de Janeiro (PUC-Rio), Brazil
Fall 1988 – Fall 1990	Teaching Assistant School of Chemistry Federal University of Rio de Janeiro, Brazil
Spring 1988	Scientific Initiation Scholar (scholarship awarded by the National Research Council, CNPq) School of Chemistry Federal University of Rio de Janeiro, Brazil Supervisor: Professor Carlos Augusto Perlingeiro

Research Interests

Project management and scheduling, sustainable logistics, reinforcement learning and machine learning applications, simulation

Teaching Experience

Lecturer: Holon Institute of Technology

Fall 2024+	Project Risk Management — Course content revamped
Fall 2023+	Advisor for Final Projects
Fall 2023+	Project Management Laboratory
Spring 2023+	Introduction to Programming with Python
Fall 2022+	Production Systems Management — Course content revamped
Spring 2024	Introduction to Industrial Engineering and Technology Management
Fall 2023	Project Management — Course content revamped
Fall 2022, Fall 2025	Introduction to Probability

TA: Technion — Israel Institute of Technology

Faculty of Data and Decision Sciences

Fall 2025+	Advisor for Final Projects
Spring 2025+	Project in Operations Management — MBA
Fall 2021+	New Product Development, Global Network for Advanced Management — joint course with Yale School of Management
Spring 2019+	Advanced Methods in Project Management
Spring 2017 – Fall 2022	Homework grading for: Statistics, Probability and Statistics, Deterministic Models in Operations Research

Systems Engineering — Interdisciplinary ME program

Fall 2020+ Project Management for Systems Engineering
Campuses: Haifa and Sarona, Tel Aviv

Guest Lecturer: Kinneret Academic College

Fall 2022+ Introduction to Project Management (in English)
Responsible for: Simulation workshop

Ruppin Academic Center

Lecturer

Spring 2022 Advanced Project Management, The Modern Supply Chain

Fall 2021 Supply Chain Simulation (graduate), Supply Chain Management and Innovation (graduate)

Teaching assistant

Spring 2021 Advanced Project Management — Managing New Product Development (in English)

Lecturer: Ben Gurion University

Fall 2020 – Fall 2021 Project Management

Lecturer: Catholic University of Rio de Janeiro (PUC-Rio)

Fall 1995 – Spring 1996 Technology and Production Organization (graduate), Production Planning and Control, Industrial Layout

TA: Federal University of Rio de Janeiro

Fall 1988 – Fall 1990 Thermodynamics, Heat Transfer

Public Professional Activities

- Planned and chaired session: "Simulation and Risk Analytics for Decision Support"
  ORSIS (Operations Research Society of Israel) 2026 conference, Haifa, Israel, May 2026
- Management Committee (MC) Member representing Israel in COST Action CA23138: "Port City Territories in Action: A collaborative Laboratory for Inclusive Energy Transition (PACT)"
  Nominated by COST National Coordinator for Israel (2025+)
- Guest editor for special issue of *Sustainability* (ISSN 2071-1050): "The Complexity of Sustainable Project Management" (2022).
- Referee for: *IEEE Transactions on Engineering Management*, *Computers & Operations Research*, *ASCE Journal of Management in Engineering*, *Mathematical Problems in Engineering*, *Annals of Operations Research*, *European Journal of Operational Research*, *Journal of the Operational Research Society*

Professional Societies

- Operations Research Society of Israel (ORSIS)

Honors and Awards

2026, 2025 — Outstanding Academic Staff Member Award
Faculty of Industrial Engineering and Technology Management
Holon Institute of Technology, Israel
Recognition for excellence in academia, teaching, and contribution to the institute

2021 — Project Management Institute (PMI) James R Snyder International Student Paper of the Year Award
Title of the paper: Modeling and solving the tradeoff between project value and net present value
USD 550

2021 — Second prize for outstanding paper
IE & M 2021: 22nd National Industrial Engineering and Management Conference, Israel
Title of the paper: Modeling and solving the tradeoff between project value and net present value
NIS 1000

2021 — Finalist for the best student paper award
PMS 2021: 17th International Conference on Project Management and Scheduling, Toulouse
Title of the paper: Maximizing value — modeling and solving lean project management

2020 — Nahmani Prize
Faculty of Data and Decision Sciences, Technion
NIS 1750

Publications

Theses

Szwarcfiter, C. (2020). *Multimode chance-constrained project scheduling problems: formulation, solution and testing* [Doctoral dissertation, Technion - Israel Institute of Technology] URL: https://technion.primo.exlibrisgroup.com/permalink/972TEC_INST/15m46g/alma9926741695103971.

Szwarcfiter, C. (1995). *The crisis in Fordism and its consequences on production organization* [Master's thesis, Catholic University of Rio de Janeiro] URL: https://shorturl.at/asqAg.

Refereed Papers in Professional Journals

Szwarcfiter, C., & Herer, Y. T. (2024). Managing the balance between project value and net present value using reinforcement learning. *IEEE Access*, *12*, 7500–7518. DOI: https://doi.org/10.1109/ACCESS.2023.3346789.

Szwarcfiter, C., Herer, Y. T., & Shtub, A. (2023a). Balancing project schedule, cost, and value under uncertainty: A reinforcement learning approach. *Algorithms*, *16*(8), 1–38. DOI: https://doi.org/10.3390/A16080395 URL: https://www.mdpi.com/1999-4893/16/8/395/htm%20https://www.mdpi.com/1999-4893/16/8/395.

Szwarcfiter, C., Herer, Y. T., & Shtub, A. (2023b). Shortening the project schedule: Solving multimode chance-constrained critical chain buffer management by reinforcement learning. *Annals of Operations Research*. DOI: https://doi.org/10.1007/S10479-023-05597-8 URL: https://rdcu.be/dmDH4.

Szwarcfiter, C., Herer, Y. T., & Shtub, A. (2022). Project scheduling in a lean environment to maximize value and minimize overruns. *Journal of Scheduling*, *25*, 177–190. DOI: https://doi.org/10.1007/s10951-022-00727-9 URL: https://link.springer.com/10.1007/s10951-022-00727-9.

Szwarcfiter, C., & Dalcol, P. R. T. (1997). Economias de escala e de escopo: desmistificando alguns aspectos da transição (Economies of scale and scope: Demystifying some aspects of the transition). *Production*, *7*(2), 117–129. DOI: https://doi.org/10.1590/S0103-65131997000200001.

Submitted for Publication

Szwarcfiter, C., Bukchin, Y., & Raviv, T. (2024). Planning and pricing full truckload transportation services in a two-sided platform: Profit maximizer vs. social planner. *TechRxiv*. DOI: https://doi.org/10.36227/TECHRXIV.172174931.17601523/V1.

Refereed Papers in Conference Proceedings

Szwarcfiter, C., & Shtub, A. (2026). Formulating the two-stage agile sprint planning problem: Optimization and reinforcement learning models. *PMS 2026 – 20th International Workshop on Project Management and Scheduling, extended abstract* URL: https://pms2026.sciencesconf.org/data/book_pms2026_en.pdf.

Szwarcfiter, C. (2025). Do small detours deliver big gains? Online accept/reject policies for overlapping bus lines [Highly selective inaugural conference on AI-authored research and AI-driven peer review, organized with an international advisory board including Nobel laureates and senior editors. Acceptance rate: 19% (48/253).]. *Open Conference of AI Agents for Science (Agents4Science 2025), Stanford University (virtual).* DOI: https://doi.org/10.36227/techrxiv.176153357.79265990/v1 URL: https://agents4science.stanford.edu/accepted-papers.html.

Shtub, A., & Szwarcfiter, C. (2024). The agile project management scheduling problem—definition and discussion. *PMS 2024: 19th International Conference on Project Management and Scheduling, extended abstract.*

Szwarcfiter, C., Herer, Y. T., & Shtub, A. (2024). Reinforcement learning for lean and robust project scheduling under duration uncertainty. *PMS 2024: 19th International Conference on Project Management and Scheduling, extended abstract.*

Szwarcfiter, C., Shtub, A., & Herer, Y. T. (2020a). Maximizing value–modeling and solving lean project management. *PMS 2020: 17th International Conference on Project Management and Scheduling, extended abstract.* URL: https://pms2020.sciencesconf.org/298313/Maximizing_value_and_minimizing_waste_Modeling_and_solving_lean_project_management_PMS_extended_abstract_final.pdf.

Szwarcfiter, C., Shtub, A., & Herer, Y. T. (2020b). Solving the stochastic multimode resource-constrained project scheduling problem. *PMS 2020: 17th International Conference on Project Management and Scheduling, extended abstract.* URL: https://pms2020.sciencesconf.org/298323/PMS_extended_abstract_paper_2_final.pdf.

Conference Presentations

- AI-Driven Shortage Allocation in Pharmaceutical Supply Chains: A Reinforcement Learning and Simulation-Based Framework. The 1st Annual International Conference on Innovation in Supply Chain and Logistics 2026, Western Galilee College, Acre, Israel, June 1, 2026
- Formulating the Two-Stage Agile Sprint Planning Problem: Optimization and Reinforcement Learning Models
  - ORSIS (Operations Research Society of Israel) 2026 conference, Haifa, Israel, May 12–13, 2026
  - PMS 2026: 20$^{\text{th}}$ International Workshop on Project Management and Scheduling, Toulouse, France, Apr 13–16, 2026
- Scheduling Agile projects with AI support
  - ORSIS (Operations Research Society of Israel) 2025 conference, Tel Aviv, Israel, May 5–6, 2025
  - 24$^{\text{th}}$ conference of industrial engineering and management, Ra'anana, Israel, Apr 28, 2025
- Reinforcement learning for lean and robust project scheduling under duration uncertainty. PMS 2024: 19$^{\text{th}}$ International Workshop on Project Management and Scheduling, Bern, Switzerland, Apr 2–5, 2024
- A secondary full truckload marketplace for maximizing profit and reducing empty truck runs
  - ORSIS (Operations Research Society of Israel) 2022 conference, Jerusalem, Israel, May 30–31, 2022
  - Digital Living 2030: The Tel Aviv University – Stanford Partnership, annual meeting, virtual, Mar 30, 2022
- Secondary full truckload marketplace in a physical internet environment
  - IFORS 2021 Virtual: The 22$^{\text{nd}}$ Conference of the International Federation of Operational Research Societies, Seoul, Aug 23–27, 2021
  - EURO 21: 31$^{\text{st}}$ European Conference on Operational Research, Athens, Greece, July 11–14, 2021
  - Digital Living 2030: The Tel Aviv University – Stanford Partnership, annual meeting, virtual, Mar 24, 2021
- Modeling and solving the tradeoff between project value and net present value

  - ORSIS (Operations Research Society of Israel) 2021 conference, Haifa, Israel, Aug 2–3, 2021
  - IE & M 2021: 22nd National Industrial Engineering and Management Conference, Rishon L'Tsion, Israel, Jun 2, 2021

- Maximizing value—modeling and solving lean project management
  PMS 2021: 17th International Conference on Project Management and Scheduling, virtual, Apr 21–23, 2021

- Solving the stochastic multimode resource-constrained project scheduling problem. PMS 2021: 17th International Conference on Project Management and Scheduling, virtual, Apr 21–23, 2021

- Value stability in multimode projects with stochastic activity durations
  - ORSIS (Operations Research Society of Israel) 2019 conference, May 13, 2019
  - POMS 30th annual conference, Washington D.C., U.S., May 5, 2019
  - 21st conference of industrial engineering and management, Tel Aviv, Israel, Apr 1, 2019

- Market Fragmentation: Driver of change in production organization
  XV ENEGEP - National Conference on Production Engineering, São Carlos, SP, Brazil, Sep 4, 1995

Invited Seminars in Universities

5/2022 Project Scheduling in a Lean Environment to Maximize Value and Minimize Overruns. Ariel University

Current Research in Progress

Szwarcfiter, C., Bukchin, Y., & Raviv, T. (n.d.). Secondary full truckload marketplace in a physical internet environment.

Szwarcfiter, C., & Shtub, A. (n.d.). Scheduling agile projects with AI support.