

Fatemeh Zare Bidaki

Koç University, Istanbul, Turkey

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Education

Koç University

Ph.D. in Business Administration (*Operations Management and Information Systems*)

Thesis: Online Optimization Approaches for Post-disaster Casualty Transportation under Uncertainty

Advisors: Prof. Sibel Salman and Assoc Prof. Evrin Didem Gunes

Research area: Humanitarian logistics, Mathematical modeling, Heuristics, Simulation, Emergency medical services.

Selected courses: Integer & Combinatorial Optimization, Advanced Optimization, Heuristic Methods, Dynamic Programming, Machine Learning, Econometrics, Stochastic Models.

Sharif University of Technology

MBA, *Strategy & Marketing*

Tehran, Iran

2012–2015

Sharif University of Technology

B.Sc. in Industrial Engineering

Tehran, Iran

2008–2012

Thesis: *Optimizing the Surgery Master Schedule, Sequencing and Resource Allocation in Afshar Heart Hospital.*

Teaching Experience

Faculty of Engineering, Koç University

Instructor

Istanbul, Turkey

Fall 2025

Engineering Economics (Indr202) Responsible for lectures, course design, and assessment.

College of Administrative Sciences and Economics, Koç University

Co-Instructor

Istanbul, Turkey

Spring 2025

Quantitative Methods in Business (QMBU301, Section 3) Responsible for lectures, course design, and assessment.

Koç University

Teaching Assistant

Istanbul, Turkey

2019–2024

Courses: Operations Management, Production and Service Operations, Introduction to Management Science (Lab), E-Commerce Management (Lab), Quantitative Methods in Business.

Yazd University

Lecturer

Yazd, Iran

2017–2019

Taught courses in Procurement, Warehousing, Distribution, E-commerce, International Marketing, and English for Management.

Sharif University of Technology

Teaching Assistant

Tehran, Iran

2011–2014

Courses: Project Management, Production Methods, Computer Skills in IE, Industrial Project Management.

Honors & Awards

Graduate School of Business, Koç University

Istanbul, Turkey

2024–2025

Outstanding RA/TA Award

Recognized for exemplary research and teaching assistance, student support, and course development.

Publications & Working Papers

"Adaptive Bayesian Estimation of Earthquake Casualties under Spatiotemporal Dynamics" – accepted for *IEEM Proceedings*.

"Online Optimization of Ambulance Dispatching in Mass Casualty Incidents with Bayesian Updates" – in preparation for *European Journal of Operational Research*.

"Hybrid Optimization and Simulation for Emergency Medical Services" – targeted for *Journal of Simulation*.

Conference Presentations

EURO HOpe <i>University of Edinburgh</i> <i>Disaster-Era Ambulance Routing with Partial or Unknown Victim Data.</i>	Edinburgh, UK 2025
EURO 2025 Conference <i>University of Leeds</i> <i>Bayesian Estimation and Online Optimization in Ambulance Dispatching .</i>	Leeds, UK 2025
EWGLA <i>University of Sheffield</i> <i>Dynamic location allocation and routing of rescue vehicles in Mass-Casualty Incidents.</i>	Sheffield, UK 2024
POMS Conference <i>Istanbul Technical University</i> <i>Dynamic Ambulance Dispatch with Bayesian Updates in Mass Casualty Incidents.</i>	Istanbul, Turkey 2024
OR65 <i>University of Bath</i> <i>Simulation of Emergency Medical Services under Demand Uncertainty.</i>	Bath, UK 2023
KU Healthcare Operations Workshop <i>Koç University</i> <i>Fairness in Relief Logistics for Mass Casualty Incidents.</i>	Istanbul, Turkey 2023
YA/EM Doctoral Colloquium <i>Bogazici university</i> <i>Firefighting Mission Acceptance and Scheduling with Ant Colony Optimization.</i>	Istanbul, Turkey 2021

Research Projects

- 2024–2025: System Dynamics Simulation of EMS in Mass-Casualty Incidents:** Built simulation with survival functions, Bayesian learning, and reinforcement learning integration.
- 2021: CSR in Two-Level Supply Chains:** Game-theoretic study of investment coordination under power asymmetry.

Professional Experience

Business Elites Group <i>Managing Director of Operations</i> Led business consultations and delivered executive professional courses. Oversaw operations and strategic planning.	Yazd, Iran 2018–2019
Parsis Holding <i>Export and International Marketing Manager</i> Managed export and sales operations. Specialized in international marketing and negotiations with foreign ambassadors and chambers of commerce.	Yazd, Iran 2017–2018
Sunan Malzemecilik <i>International Marketing and Export Assistant</i> Developed marketing strategies for the Iranian market in the furniture industry, while managing key accounts for raw materials and accessories.	Sakarya & Istanbul, Turkey / Tehran, Iran 2016–2018
Bisaran Gasht Zhiwaar <i>Business Development Manager</i> Directed inbound tourism division. Managed contracts, oversaw operations, and spearheaded expansion.	Tehran, Iran 2015–2016
Golrang Holding, Padideh Paydar Co. <i>Strategic Planning and Development Expert</i> Developed business plans, market research projects, and financial analyses.	Tehran, Iran 2014–2015

Professional Memberships

2025–: Member, IEEE.

2024–: Member, WISDOM / YoungWomen4OR Community.

2023–: Member, The Operational Research Society.

2016–2019: Member, Yazd Chamber of Commerce, Industries, Mines & Agriculture.

Consultancy Positions

Yazd Chamber of Commerce, Advisor, Yazd, Iran

Pishgaman Accelerator, Yazd Innovation Center, Yazd, Iran

Consultant of Industry Relations, Sharif University, Tehran, Iran

Skills

Modeling: Mathematical Optimization, Discrete time Simulation, System Dynamics, Machine Learning

Programming: Python (Pyomo, RL), R, LaTeX, Streamlit

Software: Vensim, Stella, SPSS, ATLAS.ti, Arena, RapidMiner, Primavera, MS Project.

Languages: English, Turkish, Persian