Mir Ehsan Hesam Sadati, Ph.D.

Part-Time Faculty Member and Researcher
Industrial Engineering Department
Sabanci University

Email*:*
msadati@sabanciuniv.edu

Personal Homepage*:*
http://myweb.sabanciuniv.edu/msadati/

Google Scholar Profile

EDUCATIONAL STATUS

[2014−2018]   **PhD** in Industrial Engineering and Operations Management, Koç University, Istanbul, Turkey.

Thesis: *A Trilevel r-Interdiction Multi-Depot Vehicle Routing Problem with Depot Protection and Customer Selection*

Supervisor: Assoc. Prof. Deniz Aksen

[2012−2014]   **MSc** in Industrial Engineering, Urmia University, Urmia, Iran.

Thesis: *Harmony Search Algorithm for Optimization of Multi-Objective Fuzzy Random Portfolio Selection*

Supervisor: Dr. Ali Doniavi

[2008−2012]   **BSc** in Industrial Engineering**,** University of Tabriz, Tabriz, Iran.

Thesis: *A Fuzzy Modeling for Fuzzy Portfolio Optimization*

Supervisor: Dr. Javad Nematian

PROFESSIONAL EXPERIENCE

o   June 2021 – Present: Part-Time Faculty Member and Researcher, Faculty of Engineering and Natural Sciences, Sabanci University

o   June 2019 – June 2021: Postdoctoral Research Fellow, Faculty of Engineering and Natural Sciences, Sabanci University

o   March 2019 – June 2019: Assistant Professor, Industrial Engineering Department, Istanbul Kültür University

o   August 2014 – December 2018: Research and Teaching Assistant, Department of Industrial Engineering, Koç University

RESEARCH INTERESTS

Vehicle Routing, Green Logistics, Electric Vehicle Routing Problem, Facility Interdiction, Heuristic Optimization, Supply Chain Management, Mathematical Modelling.

PUBLICATIONS

o   Mir Ehsan Hesam Sadati and Bülent Çatay, "A Hybrid Variable Neighborhood Search Approach for the Multi-Depot Green Vehicle Routing Problem". ***Transportation Research Part E: Logistics and Transportation Review*** (2021), 102293*.*

o Mir Ehsan Hesam Sadati, Bülent Çatay and Deniz Aksen, "An Efficient Variable Neighborhood Search with Tabu Shaking for a Class of Multi-Depot Vehicle Routing Problems". Accepted for publication in *Computers & Operations Research* (2021) (105269).

o Vahid Akbari, Mir Ehsan Hesam Sadati and Ramez Kian, "A Decomposition-Based Heuristic for the Multi-Crew Coordinated Road Restoration Problem for Network Connectivity". Accepted for publication in *Transportation Research Part D: Transport and Environment* (2021), 102854.

o Mir Ehsan Hesam Sadati, Deniz Aksen and Necati Aras, "A Trilevel r-Interdiction Selective Multi-Depot Vehicle Routing Problem With Depot Protection." *Computers & Operations Research* (2020), 104996.

o Mir Ehsan Hesam Sadati, Deniz Aksen and Necati Aras, "The *r*-Interdiction Selective Multi-Depot Vehicle Routing Problem". *International Transactions in Operational Research*, (2020), 27(2), pp.835-866.

o Mir Ehsan Hesam Sadati and Javad Nematian, "Two-level linear programming for fuzzy random portfolio optimization through possibility and necessity-based model." *Procedia Economics and Finance* 5 (2013): 657-666.

o Javad Nematian and Mir Ehsan Hesam Sadati, "New methods for solving a vertex p-center problem with uncertain demand-weighted distance: A real case study." *International Journal of Industrial Engineering Computations* 6, no. 2 (2015): 253-266.

o Mir Ehsan Hesam Sadati, Ali Doniavi, and Abbas Samadi, "Possibility theory for multiobjective fuzzy random portfolio optimization." *Decision Science Letters* 3, no. 3 (2014): 305-318.

o Mir Ehsan Hesam Sadati and Ali Doniavi, "Optimization of Fuzzy Random Portfolio selection by Implementation of Harmony Search Algorithm." *International Journal of Engineering Trends and Technology* 8, no. 2 (2014): 60-64.

o Mir Ehsan Hesam Sadati and Jamshid Bagherzadeh Mohasefi, "The Application of Imperialist Competitive Algorithm for Fuzzy Random Portfolio Selection Problem." *International Journal of Computer Applications* 79, no. 9 (2013): 10-14.

RESEARCH IN PROGRESS or UNDER REVIEW

o Mir Ehsan Hesam Sadati, Vahid Akbari and Bülent Çatay, "Electric Vehicle Routing Problem with Flexible Deliveries". Under review in *International Journal of Production Research (revised and resubmitted).*

o Vahid Akbari, Mir Ehsan Hesam Sadati, F. Sibel Salman and Davood Shiri, "Optimizing home healthcare routing with a service-oriented objective". Under review in *Transportation Research Part B: Methodological.*

o Mir Ehsan Hesam Sadati and Bülent Çatay, "Electric Vehicle Routing Problem with Mobile Recharging". *Working Paper.*

o Mir Ehsan Hesam Sadati, Vahid Akbari and Bülent Çatay, "Electric Vehicle Routing Problem with Charging while Driving". *Working Paper.*

o Deniz Aksen, Temel Öncan, Mir Ehsan Hesam Sadati, "An empirical investigation of four well-known polynomial-size VRP formulations". *Working Paper.*

o Necati Aras, Deniz Aksen, Mir Ehsan Hesam Sadati, "Multilevel Facility Interdiction Models in Location Science: A Comprehensive Review". *Working Paper.*

TEACHING EXPERIENCE

- o **Sabanci University, Turkey (Part-Time Faculty Position)**
  - IE 454, Supply Chain Analysis, (Fall 2021 – Present)

- o **Istanbul Kültür University, Turkey (Full Time Faculty Position)**
  - IE 0411, Logistics Systems, 1 semester
  - IE 4503, Engineering Economics, 1 semester

- o **Koç University, Turkey (Teaching Assistant)**
  - INDR 201, Discrete Mathematical Structures, 1 semester
  - INDR 252, Applied Statistics, 1 semester
  - INDR 430/530, Decision Analysis, 1 semester
  - MATH 101, Mathematics for Business, 1 semester
  - MGIS 301, Management Information Systems, 2 semesters
  - MGIS 410/510, Electronic Commerce Management, 2 semesters
  - QMBU 310/501, Introduction to Management Science, 2 semesters

AWARDS AND HONORS

- o **The most downloaded articles from Computers & Operations Research in the last 90 days (October 15, 2020),** A trilevel r-interdiction selective multi-depot vehicle routing problem with depot protection
- o **Top Downloaded Paper 2018-2019**, International Transactions in Operational Research, The *r*-Interdiction Selective Multi-Depot Vehicle Routing Problem
- o **Fall 2017 Outstanding Teaching Award Recipient**, Graduate School of Science and Engineering, Koç University.
- o **Koç University Foundation Scholarship** (2014-present).
- o **Ranked 1st** graduate student, Urmia University.
- o Certificate of *"Attended and Participated in a Pearson In-Service Workshop on Top Notch at Alef Educational Complex"*, 2013.
- o Honor Student in Pre-university Certificate, Tabriz-Iran 2007.

REFEREE FOR

- o Omega: The International Journal of Management Science
- o Transportation Research Part E: Logistics and Transportation Review
- o Computers & Operations Research
- o International Journal of Production Research
- o Applied Mathematical Modelling
- o Journal of Advanced Transportation
- o Transactions on Emerging Telecommunications Technologies
- o Economic Modelling
- o Journal of Contemporary Management
- o Global Journal of Technology & Optimization

PRESENTATIONS

o *"Multi-Depot Green Vehicle Routing Problem"*. 40th National Operations Research and Industrial Engineering Congress (**YAEM 2021**), Boğaziçi University, Industrial Engineering Department, Istanbul, Turkey, July 4-7 2021.

o *"The r-Interdiction Multi-Depot Vehicle Routing Problem"*.
29th European Conference on Operational Research (**EURO 2018**), Valencia, Spain, July 8-11 2018.

o *"The r-Interdiction Multi-Depot Vehicle Routing Problem with Customer Selection"*. Operations Research / Industrial Engineering Doctoral Students Colloquium, Sabanci University Industrial Engineering Department, Istanbul, Turkey, November 2-3 2017.

o *"The r-Depot Interdiction Vehicle Routing Problem with Capacitated Vehicles and Depots"*. 37th National Operations Research and Industrial Engineering Congress (**YAEM 2017**), Yıldız Technical University Industrial Engineering Department, Istanbul, Turkey, July 5-7 2017.

o *"Comparison of Three Classes of MIP Formulations for the Generic CVRP"*.
VeRoLog 2015, Annual Workshop of the EURO Working Group on Vehicle Routing and Logistics Optimization, Vienna, Austria, June 8-10 2015.

PhD LEVEL COURSEWORK

o **Koç University, Turkey**

Department of Industrial Engineering:
Optimization Models and Algorithms (advanced), Stochastic Models and Applications (advanced), Network Models and Applications, Decision Analysis, Heuristic Methods, Logistic Management.

Department of Computer Engineering:
Algorithm Design Analysis.

o **Boğaziçi University, Turkey**

Department of Industrial Engineering:
Large Scale Programming.

o **University of Brescia, Italy**

EURO PhD School on Routing and Logistics (June 2015).

ADVANCED COMPUTER SKILLS

Visual Studio C#, CPLEX, GUROBI, GAMS, MATLAB, Mathematica, Microsoft Excel.

REFERENCES

- o Professor Bülent Çatay

  Department of Industrial Engineering, Sabanci University, İstanbul, Turkey
  Email: catay@sabanciuniv.edu
  Phone: (+90) 216 483 9531

- o Associate Professor Deniz Aksen

  College of Administrative Sciences and Economics, Koç University, İstanbul, Turkey
  Email: daksen@ku.edu.tr
  Phone: (+90) 212 338 16 84

- o Professor Necati Aras

  Department of Industrial Engineering, Boğaziçi University, İstanbul, Turkey
  Email: arasn@boun.edu.tr
  Phone: (+90) 212 359 7506