İhsan Sadati (Mir Ehsan Hesam Sadati), Ph.D.

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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

- September 2022 – Present: Instructor, Faculty of Engineering and Natural Sciences, Sabanci University
- June 2021 – Present: Researcher at Smart Mobility and Logistics Lab, Faculty of Engineering and Natural Sciences, Sabanci University
- June 2019 – May 2021: Postdoctoral Research Fellow, Faculty of Engineering and Natural Sciences, Sabanci University
- March 2019 – May 2019: Assistant Professor, Industrial Engineering Department, Istanbul Kültür University
- 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 IN JOURNALS OF THE SCIENCE CITATION INDEX (SCI)

1. Nima Moradi, İhsan Sadati and Bülent Çatay, "Last Mile Delivery Routing Problem using Autonomous Electric Vehicles". ***Computers & Industrial Engineering***, 109552 (2023).
2. Bülent Çatay and İhsan Sadati, "An improved matheuristic for solving the electric vehicle routing problem with time windows and synchronized mobile charging/battery swapping". ***Computers & Operations Research***, 106310 (2023).
3. Vahid Akbari, İhsan Sadati, F. Sibel Salman and Davood Shiri, "Optimizing Minimizing total weighted latency in home healthcare routing and scheduling with patient prioritization". ***OR Spectrum***, 45, 807–852 (2023).
4. Mir Ehsan Hesam Sadati, Vahid Akbari and Bülent Çatay, "Electric Vehicle Routing Problem with Flexible Deliveries". ***International Journal of Production Research***, , 60(13), 4268-4294 (2022).
5. 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***, 102293 (2021).
6. 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". ***Computers & Operations Research***, 105269 (2021).
7. Vahid Akbari, Mir Ehsan Hesam Sadati and Ramez Kian, "A Decomposition-Based Heuristic for the Multi-Crew Coordinated Road Restoration Problem for Network Connectivity". ***Transportation Research Part D: Transport and Environment***, 102854 (2021).
8. 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***, 104996 (2020).
9. Mir Ehsan Hesam Sadati, Deniz Aksen and Necati Aras, "The *r*-Interdiction Selective Multi-Depot Vehicle Routing Problem". ***International Transactions in Operational Research***, 27(2), 835-866 (2020).
10. 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, 657-666 (2013).
11. 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(2), 253-266 (2015).

OTHER PUBLICATIONS

1. İhsan Sadati., Integrating a Connected Micromobility Infrastructure to the Existing Public Transport. ***Journal of Intelligent Transportation Systems and Applications*** (***Akıllı Ulaşım Sistemleri ve Uygulamaları Dergisi***), 6(1), pp.184-193 (2023).
2. Mir Ehsan Hesam Sadati, Ali Doniavi, and Abbas Samadi, "Possibility theory for multiobjective fuzzy random portfolio optimization." ***Decision Science Letters***, 3(3), 305-318 (2014).
3. 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(2), 60-64 (2014).

4. 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(9), 10-14 (2013).

RESEARCH IN PROGRESS or UNDER REVIEW

1. Raheleh Khanduzi and İhsan Sadati, “A modified imperialist competitive algorithm to solve a hierarchical-location-allocation problem for a median capacitated health network”, ***Under Review.***
2. Deniz Aksen, İhsan Sadati, “An empirical investigation of four well-known polynomial-size VRP formulations”. ***Under Review.***
3. Vahid Akbari and Bülent Çatay and İhsan Sadati, “Electric Vehicle Routing Problem with Charging while Driving”. ***Under Review.***
4. Necati Aras, Deniz Aksen, İhsan Sadati, “Multilevel Facility Interdiction Models in Location Science: A Comprehensive Review”. ***Working Paper.***

INVOLVED PROJECTS

1. MeHUB: Integrating a Connected Micromobility Infrastructure to the Existing Public Transport (Link)
2. Smart City Strategy of Konya (Link)

TEACHING EXPERIENCE

- **Sabanci University, Turkey (Instructor)**
  - ENS 208, Introduction to Industrial Engineering. (Spring 2023 to Present)
  - IE 430, Logistics Sys&Plan. and Design, (Fall 2022, Fall 2023)
  - IE 305, Simulation, (Fall 2022)
  - IE 313, Operations Research III, (Summer 2022)
  - ENS 511, Engineering Optimization, (Spring 2022)
  - IE 454, Supply Chain Analysis, (Fall 2021)

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

- **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

- **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
- **Top Downloaded Paper 2018-2019**, International Transactions in Operational Research, The *r*-Interdiction Selective Multi-Depot Vehicle Routing Problem
- **Fall 2017 Outstanding Teaching Award Recipient**,
  Graduate School of Science and Engineering, Koç University.
- **Koç University Foundation Scholarship** (2014-present).
- **Ranked 1st** graduate student, Urmia University.
- Certificate of *"Attended and Participated in a Pearson In-Service Workshop on Top Notch at Alef Educational Complex"*, 2013.
- Honor Student in Pre-university Certificate, Tabriz-Iran 2007.

MEMBERSHIP

- Association of European Operational Research Societies (EURO)
- Euro Working Group on Vehicle Routing and Logistics (VeRoLog)
- Production and Operations Management Society (POMS)
- Operational Research Society-Turkey (YAD)

REFEREE FOR

- Transportation Research Part E: Logistics and Transportation Review
- Computers & Operations Research
- International Journal of Production Research
- Annals of Operations Research
- Omega: The International Journal of Management Science
- Engineering Applications of Artificial Intelligence
- Soft Computing
- Applied Mathematical Modelling
- Journal of Advanced Transportation
- EURO Journal on Transportation and Logistics
- Arabian Journal for Science and Engineering
- Transactions on Emerging Telecommunications Technologies
- Economic Modelling
- Journal of Contemporary Management
- Global Journal of Technology & Optimization

EDITORIAL BOARD MEMBERSHIP

- Annals of Applied Sciences (journal website)

PRESENTATIONS

- *"Electric Vehicle Routing Problem with an On-Demand Mobile Charging System"*. 2023 POMS International Conference (**POMS 2023**), hosted by Rennes School of Business, Paris, France, 18-20 July 2023.
- *"Electric Vehicle Routing Problem with Flexible Deliveries"*. 32nd European Conference on Operational Research (**EURO 2022**), Aalto University, Espoo, Finland, 3-6 July, 2022.
- *"Electric Vehicle Routing Problem with Flexible Deliveries"*. 8th meeting of the EURO Working Group on Vehicle Routing and Logistics Optimization (**VeRoLog 2022**), Kühne Logistics University, Hamburg, Germany, 12-15 June, 2022.
- *"Multi-Depot Green Vehicle Routing Problem"*. 40th National Operations Research and Industrial Engineering Congress (**YAEM 2021**), Boğaziçi University, Industrial Engineering Department, Istanbul, Turkey, 4-7 July, 2021.
- *"The r-Interdiction Multi-Depot Vehicle Routing Problem"*. 29th European Conference on Operational Research (**EURO 2018**), Valencia, Spain, 8-11 July, 2018.
- *"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, 2-3 November, 2017.
- *"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, 5-7 July, 2017.
- *"Comparison of Three Classes of MIP Formulations for the Generic CVRP"*. 4th meeting of the EURO Working Group on Vehicle Routing and Logistics Optimization (**VeRoLog 2015**), University of Vienna, Vienna, Austria, 8-10 June, 2015.

ADVANCED COMPUTER SKILLS

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

REFERENCES

- Professor Bülent Çatay
  Department of Industrial Engineering, Sabanci University, İstanbul, Turkey
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- Professor Deniz Aksen
  College of Administrative Sciences and Economics, Koç University, İstanbul, Turkey
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  Phone: (+90) 212 338 16 84
- Professor Necati Aras
  Department of Industrial Engineering, Boğaziçi University, İstanbul, Turkey
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