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Industrial Engineering Program
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Google Scholar Profile

EDUCATIONAL STATUS

[2014–2018] **Ph.D.** 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: 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: Assoc. Prof. Ali Doniavi

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

Thesis: *A Fuzzy Modeling for Fuzzy Portfolio Optimization*

Supervisor: Assoc. Prof. Javad Nematian

PROFESSIONAL EXPERIENCE

- September 2024 – Present: Faculty Member (Assistant professor), Faculty of Engineering and Natural Sciences, Sabanci University
- September 2022 – August 2024: 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 & Metaheuristic, Supply Chain Management, Mathematical Modelling, Combinatorial Optimization.
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PUBLICATIONS IN JOURNALS OF THE SCIENCE CITATION INDEX (SCI)

1. İhsan Sadati, "An efficient matheuristic integration with benders decomposition for unmanned aerial vehicle routing problem in forest fire surveillance". **Computers & Industrial Engineering**, 111087 (2025).
2. Raheleh Khanduzi and İhsan Sadati, "Developing an imperialist competitive algorithm based on two improvement strategies in a hierarchical capacitated health network". **Neural Computing and Applications** 1-24 (2024).
3. Raheleh Khanduzi, İhsan Sadati and Vahid Akbari, "A bilevel hierarchical covering model to protect a healthcare network against failures". **Operational Research (Oper Res Int J)** 24, 61 (2024).
4. Vahid Akbari, Bülent Çatay and İhsan Sadati, "Route optimization of battery electric vehicles using dynamic charging on electrified roads". **Sustainable Cities and Society**, 105532 (2024).
5. Nima Moradi, İhsan Sadati and Bülent Çatay, "Last Mile Delivery Routing Problem using Autonomous Electric Vehicles". **Computers & Industrial Engineering**, 109552 (2023).
6. 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).
7. 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).
8. 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).
9. 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).
10. 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).
11. 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).
12. 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).
13. 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).
14. 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).

15. Mir Ehsan Hesam Sadati, Ali Doniavi, and Abbas Samadi, "Possibility theory for multiobjective fuzzy random portfolio optimization." *Decision Science Letters* (Emerging Sources Citation Index), 3(3), 305-318 (2014).
 16. 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).
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BOOK CHAPTERS

1. İhsan Sadati and Bülent Çatay, "Routing of electric freight vehicles", *Encyclopedia in Operations Management (Reference Module in Social Sciences)*.
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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 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).
 3. 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).
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CONFERENCE PAPERS

1. İhsan Sadati and Bülent Çatay, "Electric vehicle routing problem with an on-demand mobile charging system", *Proceedings of the 14th Annual International Conference on Industrial Engineering and Operations Management (IEOM 2024)*.
 2. İhsan Sadati and Bülent Çatay, "Improving last-mile delivery operations of electric vehicles using on-demand portable chargers". *Transportation Research Procedia* 86, 564-571.
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INVOLVED PROJECTS

1. Researcher: Sheffield University Management School Research and Knowledge Exchange/Impact Stimulation Fund (Collaborators: Dr. Sina Rastani and Dr. Merve Keskin)
2. Researcher: TÜBİTAK 1001 (Scientific and Technological Research Council of Türkiye) Proposal Accepted on 29 December, 2023 (PI: Duygu Taş Küten-Sabancı University) ([Link](#))
3. Researcher: Iran National Science Foundation (INSF) "Application of a combination of mathematical models and GIS capabilities in locating health facilities, Case study: Health care network of Golestan Province" (Principal Investigator: Prof. Raheleh Khanduzi-Gonbad Kavous University, Iran).
4. Researcher: MeHUB: Integrating a Connected Micromobility Infrastructure to the Existing Public Transport ([Link](#))
5. Researcher: Smart City Strategy of Konya ([Link](#))

TEACHING EXPERIENCE

- **Sabanci University, Turkey (Instructor)**
 - DA 507, Modeling and Optimization: Professional Graduate Course (Fall 2023 to Present)
 - ENS 511, Engineering Optimization (Spring 2022, Spring 2024)
 - ENS 208, Introduction to Industrial Engineering (Spring 2023 to Present)
 - IE 430, Logistics Systems Planning and Design (Fall 2022 to Present)
 - IE 305, Simulation (Fall 2022)
 - IE 313, Operations Research III (Summer 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
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AWARDS AND HONORS

- **TÜBİTAK 2224-A - Grant Program for Participation in Scientific Meetings Abroad 2024**
 - **Sheffield University Management School Research and Knowledge Exchange/Impact Stimulation Fund** (Collaborators: Dr. Sina Rastani and Dr. Merve Keskin)
 - **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.
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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](#))
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REFeree FOR

- Transportation Research Part E: Logistics and Transportation Review
 - Computers & Operations Research
 - International Journal of Production Research
 - European Journal of Operational Research
 - INFORMS Journal on Computing
 - Annals of Operations Research
 - OR Spectrum
 - 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
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EDITORIAL BOARD MEMBERSHIP

- Annals of Applied Sciences ([journal website](#))
 - Scientific Committee member-The 2024 International Conference on Demographic Transition, Health and Technologies ICDTHT'24 ([Conference website](#))
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PRESENTATIONS

- *"Improving last-mile delivery operations of electric vehicles using on-demand portable chargers"*. 26th Euro Working Group on Transportation Meeting (**EWGT 2024**), Lund University, Sweden, September 4-6, 2024.
- *"Electric vehicle routing problem with an on-demand mobile charging system"*. 14th International Conference on Industrial Engineering and Operations Management (**IEOM 2024**), hosted by Khalifa University, Dubai, UAE, February 11-14, 2024.
- *"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.

- *“Electric Vehicle Routing Problem with Flexible Deliveries”*. 12th Annual International Conference on Industrial Engineering and Operations Management (**IEOM 2022**), hosted by Kadir Has University, in collaboration with Sabancı University, Istanbul, Turkey, March 7 – 10, 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, Sabancı 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
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- Professor Deniz Aksen
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