

ZAHRA ANSARILARI

CONTACT INFORMATION WORK EXPERIENCE

 [GoogleScholar](#)  [LinkedIn](#)  [Twitter](#)

- Postdoctoral researcher at Transport Systems Institute for Transport Planning and Systems, ETH Zürich : involved in the [E-Bike-City Project](#) July 2024 - September 2025
- Data scientist at Neshan Map : working on improving travel time estimation using time series analysis and optimization methods. August 2023 - March 2024
- Public transit planner at Aavande-Tarho-Andieshe : working on redesigning the mass transit network of the city of Shiraz, Iran. May 2023 - September 2023
- Research assistant of Dr.Amir Samimi, Sharif University of Technology Institute of Transportation Studies and Research (ITSR). Working on designing new freight movement regulations and enforcement in Tehran, Iran September 2014 - May 2015
- Practical training, in Boland Paye Company : Choosing the best construction method via the multi-criteria decision-making method based on experts' insights for a project consisting of 31,000 residential apartments in IRAQ. Summer 2013

RESEARCH EXPERIENCE

- Developing a two-stage stochastic mixed integer programming model considering demand fluctuations due to regular biking, case study : City of Zürich
- Developed a two-stage stochastic mixed integer programming model considering variability in passenger walking times between bus stops at the transfer node, bus running times, dwell times, and demand uncertainty.
- Developed a mixed-integer linear programming timetable synchronization model that incorporates new features, such as dwell time determination and vehicle capacity limit consideration to minimize transfer synchronization in bus networks.
- Designed an airport pavement management system through a hybrid approach of Markov Chain and supervised multi-objective genetic algorithms.

EDUCATION

Ph.D in Transportation *2016 - 2022*
Civil and Mineral Engineering Department, University of Toronto
Research : Transfer time optimization in transit scheduling

M.Sc. in Construction Engineering and Management *2013 - 2015*
Civil Engineering Department, Amirkabir University of Technology
Research : Integrated airport pavement management

B.Sc. in Civil Engineering *2009 - 2013*
Civil Engineering Department, Sharif University of Technology

Minor in Physics *2011 - 2013*
Physics Department, Sharif University of Technology

RESEARCH

Publications

- **Zahra Ansarilari**, Merve Bodur, and Amer Shalaby, (2025). "[A comprehensive stochastic programming model for transfer synchronization in transit networks](#)". the Journal of Computers and Operations Research.
- **Zahra Ansarilari**, Merve Bodur, and Amer Shalaby, (2024). "[A Novel Model for Transfer Synchronization in Transit Networks and a Lagrangian-based Heuristic Solution Method](#)". the European Journal of Operational Research.
- **Zahra Ansarilari**, Mahmood Mahmoodi Nesheli, Merve Bodur, and Amer Shalaby, (2022). "[Transfer Time Optimization in Public Transit Networks: Assessment of Alternative Models](#)." Transportmetrica A : Transport Science.
- **Zahra Ansarilari**, Amir Golroo, (2019). "[Integrated Airport Pavement Management using a hybrid approach of Markov Chain and Supervised multi-objective genetic algorithms](#)." International Journal of Pavement Engineering 21 (14), 1864-1873.

- Alireza Ermagun, Taha Hossein Rashidi and **Zahra Ansarilari**, (2016). “Long-Term Planning and the Impact of Model Specification on Policy Assessment for School Trip Mode Behavior.” Transportation research record 2513 (1), 97-105.
- **Zahra Ansarilari** and Amir Golroo, (January 2015). “Automated Transportation Mode Detection Using Smart Phone Application via Machine Learning: Case Study Mega City of Tehran.” 94th Annual Meeting of the Transportation Research Board, Washington, D.C.

TEACHING EXPERIENCE

- **Course Lecturer** Spring 2025
Transport Systems Institute for Transport Planning and Systems, ETH Zürich, Course : Logistics and Freight Transportation
- **Guest Lecturer** Winter 2022
Civil Engineering, University of Toronto, Course : public transit operations and planning
Lectured 1 session : Transferring in Public Transit
- **Guest Lecturer** Fall semesters of 2019-2022
Civil Engineering, University of Toronto, Course : urban operations research
Lectured 4 sessions : Integer Programming in Transportation Engineering
Created coding assignment regarding Mixed-Integer programming using GUROBI in Python
- **DEEP Instructor (The Da Vinci Engineering Enrichment Program)** Summer 2019
Developed the course materials, “The science of moving people and things” Lectured 2.5-day and 5-day program for senior high school students, University of Toronto
- **Teaching Assistant - University of Toronto** 2016-2022
Department of Civil Engineering. Courses : urban operations research, public transit operations and planning, engineering economics and decision making, probability and statistics.
Department of Mathematics. Courses : Calculus II, Linear Algebra
- **Teaching Assistant - Sharif University of Technology** 2013-2014
Department of Civil Engineering. Course : Risk Analysis.

EXTRA RESEARCH ACTIVITIES/ CERTIFICATIONS

- **GenAI in Teaching and Learning: GenAI Challenge**, (2024), ETH Zürich.
- **Design Your Life and Career**, (2024), ETH Zürich.
- **Public Transit Modelling workshop**, (2022), University of Toronto.
- **Public Transit Planning and ITS workshop**, (2022), University of Toronto.
- **Mobility Network Summer School: Planning More Equitable Transportation Systems**, (2022), University of Toronto.
- **Global Challenges in Transportation - Oxford Leadership Programme** Working group : Transport and Mobility Justice, Oxford University, (2021). Project : **The Practice of Mobility and Transport Justice in Different Cities**.
- **Student Academy Membership**, School of Cities, Infrastructure and Design / Design, Technology and Urbanism Group, University of Toronto, (2019). Project : **Assessing the Gap: Analyzing Campus Transportation Infrastructure**
- **Statistics Canada Hackathon on Urban Transit Data**, (2019).

SURVEY EXPERIENCE

- Participating in IBI Group Brampton Transit Survey, riding Brampton Transit buses and asking riders about their transit trip on the bus. October 2018
- Participating in mega households travel survey of Tehran, cooperating with Tehran Comprehensive Transportation and Traffic Studies Company, using a mobile phone application specifically developed for this survey. November 2014
- Designed and distributed Over 9,000 paper-based questionnaires among more than 100 Schools in 22 Regions of Tehran about Household Travel Behavior in earthquakes under the supervision of Prof. Amir Samimi. May 2014.

TECHNICAL PRESENTATION

- **Zahra Ansarilari**. The Necessity Of Integrating Public Transportation And Active Mobility. Tehran Active Mobility Group, University of Tehran, (2025).
- William Andersson, Florian Fuchs, **Zahra Ansarilari**, Oleksandr Halipchak, Francesco Corman. Multi-scale responsive public transport planning for bi-modal demand. The E-Bike City : Designing Sustainable Streets, (2025).
- William Andersson, Florian Fuchs, **Zahra Ansarilari**, Oleksandr Halipchak, Francesco Corman,(2025). The impact of bike integration as an access/egress mode in transit network design : Insights from a Zurich subnetwork. 25th Swiss Transport Research Conference (STRC 2025).
- **Zahra Ansarilari**, Merve Bodur, Amer Shalaby, (2024). A Comprehensive Stochastic Programming Model for Transfer Synchronization in Transit Networks. ISMP 2024, 25th International Symposium on Mathematical Programming ; Montreal, Canada.
- **Zahra Ansarilari**, Merve Bodur, Amer Shalaby, (2022). Transfer Synchronization in Transit Networks : A Stochastic Programming Approach. iCity-CATTS Symposium, University of Toronto.
- **Zahra Ansarilari**, Merve Bodur, Amer Shalaby, (2021). Towards seamless transfers in transit networks. TSLworkshop.
- **Zahra Ansarilari**, Merve Bodur, Amer Shalaby, (2021). Transfer time optimization in public transit scheduling. Canadation Operation Research Society.
- **Zahra Ansarilari**, Merve Bodur, Amer Shalaby, (2020). A stochastic programming approach to transfer synchronization in transit networks. INFORMS Annual Meeting.
- **Zahra Ansarilari**, Merve Bodur, Amer Shalaby, (2020). Transfer time optimization in transit scheduling and coordination in operational, control. iCity-CATTS Symposium, University of Toronto.
- **Zahra Ansarilari**, Merve Bodur, Amer Shalaby, (2020). Stochastic transfer synchronization in transit networks : comparison of alternative formulations. TransitData2020 Conference.
- **Zahra Ansarilari**, Merve Bodur, Amer Shalaby, (2020). Towards seamless transfers in transit networks : deterministic, stochastic, and real-time approaches. iCity-CATTS Symposium, University of Toronto.

HONORS AND AWARDS

- [Connect and Collaborate Grant](#), Swiss Leading House South Asia, with Dr. Zahra Saghan from Iran University of Technology, 15000CHF, (2025).
- Doctoral completion award : civil engineering, University of Toronto, 6014\$, (2020-2021).
- Department of civil and mineral engineering Covid-19 program completion award, 2000\$, (2021).
- Professor Gerald Steuart graduate scholarship, transportation Engineering, 15,255\$, (2016-2018).
- University of Toronto Fellowship (PhD), Department of civil engineering, (2016-2020).
- Best paper award in ICTTE : the 14th International conference on traffic and transportation in Tehran, in the field of transportation planning, Iran,(2015).
- Identified as an exceptionally talented student from the admission department of the Amirkabir University of Technology, and have been granted permission to study for a master's degree in Engineering and Construction Management without the entrance exam, Iran, (2013).
- Ranked 191st/400,000 participants in the national university entrance examination, Iran, (2009).

VOLUNTEER EXPERIENCE

Board member of [Bahar Charity](#), student-run charity organization at the University of Toronto 2017-2020.