

Seyedehsan Seyedabrishami

CONTACT INFORMATION

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<https://scholar.google.com/citations?user=vRmNd04AAAAJ&hl=en>

EDUCATION

Ph.D., Transport Planning, March 2011
Sharif University of Technology

M.Sc., Transport Planning, September 2005
Sharif University of Technology

B.Sc., Civil Engineering, September 2003
Sharif University of Technology

CURRENT APPOINTMENTS

Director of Applied Research and Technology Office, 2016 – Present
Tarbiat Modares University, Tehran, Iran

Assistant Professor of Transportation Engineering, September 2011-Present

Faculty of Civil & Environmental Engineering, *Tarbiat Modares University, Tehran, Iran.*
<https://www.modares.ac.ir/~seyedabrishami>

Founder and CEO of Saba Data Analysis Company, March 2018-Present

University Spin-off Company

Modares Science and Technology Park, Tehran, Iran.
<https://www.sabadataanalysis.com>

INDUSTRY EXPERIENCES

Tarbiat Modares University Tehran, Iran

Role: Team Leader

- *Evaluation of financial policies in urban traffic management in Tehran metropolitan, client: Tehran Municipality, 2014-2015.*
- *Software for short-term prediction of passenger demand at bus stations using historical automatic vehicle location (AVL) and auto fare collection (AFC) data, Client: Tehran Bus Company, 2014-2016.*
- *Software for traffic parameters forecasting for Iran rural road networks, using data from loop detectors, Client: Iranian Road Management Centre, 2016-2018.*
- *A forecast system for traffic and safety states in Iranian rural road networks, using data from intelligent transportation systems, Client: Iranian Road Management Centre, 2018-2020.*
- *Guidelines for evaluating urban development plans based on transit oriented development (TOD) principles, Client: Iran Ministry of Road and Urban Development, 2019-Present.*
- *Simulation of traffic flow in rural road network using data obtained from loop detectors and cameras, Client: Iranian Road Management Centre, 2020-Present.*

Role: Associate Director

- *Comprehensive Transportation Study in Mashad (The second most populated city in Iran), September 2012-2014*

Sharif University of Technology Tehran, Iran

Role: Chief Investigator

- *Application of count data regression model for estimating appropriate number of telecommuting days for employees*
- *Travel demand modeling using adaptive-network-based fuzzy inference system*
- *Introduction to p-median problems in transportation engineering and their solution methods*
- *Application of stochastic dynamic knapsack problem in traffic assignment*

Role: Research Assistant

- *SHIRAZ (a large city in Iran) Comprehensive Transportation Study*

Tehran Comprehensive Transportation & Traffic Studies Co., Iran

Consultant, November 2013- 2015

- *Developing Tehran activity-base model*

Tarahan Parseh, Transportation Research Institute Tehran, Iran

Consultant, August 2010- 2013

- *Impact Study of Different Scenarios of Congestion Pricing in Tehran (Capital of Iran)*

- *Rate of Motor Vehicle Tax in Tehran Metropolitan*
- *Comprehensive Transportation Study of Tehran Rural Roads*

Rah Shahr International Group, Multi-Disciplinary Engineering Tehran, Iran

Consultant, September 2010- 2012

- *Employee Parking Demand Forecasting in Tehran Metropolitan*

ARG Transportation Engineering Consultants Tehran, Iran

Research Manager, September 2007- September 2009

- *Developing a model for setting speed limits within speed zones*
- *Traffic Counting Program for Rural Roads*
- *Speed Enforcement Camera Located in Iran Roads*

Equipment Section Manager, April 2006- September 2007

- *Ceramic Road Stud*
- *Traffic Analyzers (Quixote Company branch in Dubai)*
- *Tunnel Lighting (Nu Art Lighting)*

KIA Transportation Engineering Consultants Tehran, Iran

Research Associate, August 2004- September 2006

- *Hazardous Material Transportation: Routing and Guidelines*
- *Speed Management Guidelines in Iran*

BOOKS

- Khanzad, I., **Seyedabrishami, S.**, Nazemi, M., Zarinmehr, A., “Transit Network Design Problem: An Expansion of the Route Generation Algorithm”, Kacprzyk, J. et al., “Advances Concepts, Methodologies and Rechnologies for Transportation and Logistics, Advances in Intelligent Systems and Computing”, pp. 183-197, Springer, Switzerland.
- Seyedabrishami, S., Fowri, H.R., Afshar, F., “Introduction of Financial Policies for Urban Traffic Management”, Tehran Urban Research & Planning, 2018.

PUBLICATIONS IN ENGLISH

1. Fowri, H.R. and **Seyedabrishami, S.**, 2020. Assessment of urban transportation pricing policies with incorporation of unobserved heterogeneity. **Transport Policy**.
<https://www.sciencedirect.com/science/article/abs/pii/S0967070X19309503>.
2. Zarrinmehr, A., Saffarzadeh, M. and **Seyedabrishami, S.**, 2018. A local search algorithm for finding optimal transit routes configuration with elastic demand. **International Transactions in Operational Research**, 25(5), pp.1491-1514.
<https://onlinelibrary.wiley.com/doi/full/10.1111/itor.12359>.
3. Saffarzadeh, M., Mazaheri, A., Tari, M.Z. and **Seyedabrishami, S.**, 2016. Analysis of Iranian passengers' behavior in choosing type of carrier in international air travel to East Asia. **Journal of Air Transport Management**, 56, pp.123-130.

- <https://www.inderscienceonline.com/doi/abs/10.1504/IJOR.2016.075650>
4. Haqverdi, M.Q., **Seyedabrishami, S.** and Groeger, J.A., 2015. Identifying psychological and socio-economic factors affecting motorcycle helmet use. *Accident Analysis & Prevention*, 85, pp.102-110, <https://www.sciencedirect.com/science/article/abs/pii/S0001457515300646>.
 5. Zarrinmehr, A., Saffarzadeh, M., Seyedabrishami, S. and Nie, Y.M., 2016. A path-based greedy algorithm for multi-objective transit routes design with elastic demand. *Public Transport*, 8(2), pp.261-293, <https://link.springer.com/article/10.1007/s12469-016-0131-1>.
 6. Tamannaei, M., Saffarzadeh, M., Jamili, A. and **Seyedabrishami, S.**, 2016. A double-track train rescheduling for incident conditions: optimization model and decomposition method. *International Journal of Operational Research*, 26(1), pp.62-87.
 7. Shafiei, M., Nazemi, M. and **Seyedabrishami, S.**, 2015. Estimating time-dependent origin–destination demand from traffic counts: extended gradient method. *Transportation Letters*, 7(4), pp.210-218, <https://www.tandfonline.com/doi/abs/10.1179/1942787514Y.0000000048>.
 8. **Seyedabrishami, S.** and Shafahi, Y., 2013. A joint model of destination and mode choice for urban trips: a disaggregate approach. *Transportation Planning and Technology*, 36(8), pp.703-721, <https://www.tandfonline.com/doi/abs/10.1080/03081060.2013.851507?journalCode=gtpt20>.
 9. **Seyedabrishami, S.** and Shafahi, Y., 2011. Expert knowledge-guided travel demand estimation: Neuro-fuzzy approach. *Journal of Intelligent Transportation Systems*, 15(1), pp.13-27, <https://www.tandfonline.com/doi/abs/10.1080/15472450.2011.544576?journalCode=gits20>.
 10. Jafari Shahdani, F., Rasaizadi, A., **Seyedabrishami, S.**, 2020. The interaction between activity choice and duration: Application of Copula-based and Nested-logit models. *Scientia Iranica*, In press. http://scientiairanica.sharif.edu/article_22017.html
 11. Rasaizadi, A., **Seyedabrishami, S.**, 2021. Analysis of the interaction among destination and departure time choices. *Scientia Iranica*, In press. http://scientiairanica.sharif.edu/article_22290.html
 12. Zarrinmehr, A., Meshkani, M. and **Seyedabrishami, S.**, 2018. Surveillance camera location problem for route-flow observation in urban transportation networks: bi-level formulation and solution algorithm. *International Journal of Systems Science: Operations & Logistics*, 5(4), pp.327-338. <https://www.tandfonline.com/doi/abs/10.1080/23302674.2017.1309085>.
 13. Tamannaei, M., Saffarzadeh, M., Jamili, A. and **Seyedabrishami, S.**, 2017. Simultaneous train rescheduling through cancelling, delaying and re-ordering policies: Three-phase solution method with guaranteed optimality. *Scientia Iranica*, 24(1), pp.121-135. http://scientiairanica.sharif.edu/article_2382.html.
 14. Khanzad, I.K., Zarrinmehr, A.Z., **Seyedabrishami, S.S.** and Saffarzadeh, M.S., 2017. Application of A Route Expansion Algorithm for Transit Routes Design in Grid Networks, *International Journal of Transportation Engineering*, 4(3), pp.179-196. http://www.ijte.ir/article_43835.html.
 15. Tamannaei, M., Saffarzadeh, M., Jamili, A. and **Seyedabrishami, S.**, 2016. A novel train rescheduling approach in double-track railways: optimization model and solution method based on simulated annealing algorithm. *International Journal of Civil Engineering*, 14(3), pp.139-150, <https://link.springer.com/article/10.1007/s40999-016-0002-9>.
 16. Boroujerdian, A.M., **Seyedabrishami, E.** and Akbarpour, H., 2016. Analysis of Geometric Design Impacts on Vehicle Operating Speed on Two-Lane Rural Roads. *Procedia engineering*, 161, pp.1144-1151, <https://www.sciencedirect.com/science/article/pii/S1877705816327370>.

17. Yazdanpanah, M., **Seyedabrishami, S.**, Quchanian, M., 2015, Causal Model of Motorcyclist Helmet Use Behavior, International Journal of Management and Applied Science 4(1), pp. 98-108,
http://ijmas.iraj.in/paper_detail.php?paper_id=2129&name=Causal_Model_Of_Motorcyclist_Helmet_Use_Behavior_In_Iran:_Pls-Sem_Approach.
18. Nazari, F., **Seyedabrishami, S.** and Mamdoohi, A.R., 2015. A direct demand model of departure time and mode for intercity passenger trips. International Journal of Transportation Engineering, 3(2), p.125, http://www.ijte.ir/article_13840.html.
19. Boroujerdian, A.M., Karimi, A. and **Seyedabrishami, S.**, 2014. Identification of hazardous situations using Kernel density estimation method based on time to collision, case study: Left-turn on unsignalized intersection. International Journal of Transportation Engineering, 1(4), pp.223-240, http://www.ijte.ir/&url=http://www.ijte.ir/article_6296.html.
20. Mirbaha, B., Saffarzadeh, M., **Seyedabrishami, S.** and Pirdavani, A., 2014. Evaluating the Willingness to pay for urban congestion priced zones (case study of Tehran). International Journal of Transportation Engineering, 1(3), pp.199-210, http://www.ijte.ir/article_4789.html.
21. **Seyedabrishami, S.**, Mamdoohi, A., Barzegar, A. and Hasanpour, S., 2012. Impact of carpooling on fuel saving in urban transportation: case study of Tehran. Procedia-Social and Behavioral Sciences, 54, pp.323-331.
<https://www.sciencedirect.com/science/article/pii/S1877042812042139>.
22. Ramezani, H., Shafahi, Y. and **Seyedabrishami, S.**, 2010. A shortest path problem in an urban transportation network based on driver perceived travel time, Scientia Iranica, 17(4), http://scientiairanica.sharif.edu/article_3156.html.

PUBLICATIONS IN PERSIAN

1. Rasaizadi, A., **Seyedabrishami, S.**, 2021, Traffic state prediction by machine learning algorithms for short-term and mid-term prediction time horizons, Amirkabir Journal of Civil Engineering. https://ceej.aut.ac.ir/article_4403.html
2. Ahmadinejad, S., **Seyedabrishami, S.**, 2020, The Design of Feeder Network Rail Line and Determine Frequency Using a Heuristic Method, Journal of Transportation Research, 17(2), pp. 199-208, http://www.trijournal.ir/article_110082.html.
3. **Seyedabrishami, S.**, amini, V., Iranmanesh, M., Mohadesdeylami, A., 2019, Short-term prediction of bus passenger demand, case study: Karimkhan bridge- Jomhoori square line, Quarterly Journal of Transportation Engineering, 10(3), pp. 497-512, http://jte.sinaweb.net/article_55936.html.
4. Seyedabrishami S, Mohades Deylami A, amini V, Iranmanesh M. Short-term prediction of passenger demand in bus stations, case study: Karimkhan bridge- Jomhoori square . IQBQ. 2018; 18 (4) :115-129. <http://mcej.modares.ac.ir/article-16-15425-en.html>.
5. Asdamraji, M., **Seyedabrishami, S.**, Saffarzadeh, M., Askari, M., 2019, Poisson Regression Model of Frequency and Severity of Road Accidents in Rural Roads, Journal of Ferdowsi Civil Engineering, 31(3), pp. 33-46.
<https://civil-ferdowsi.um.ac.ir/index.php/civil/article/view/58128>

6. Mahpour, A.R., Mamdoohi, A.R., **Seyedabrishami, S.**, Baghestani A.H., 2018, Modeling the Intra City Tours with Work Purpose by Using Weighted Multiple Regressions, Amirkabir Journal of Civil Engineering 50(1), 47-50, https://ceej.aut.ac.ir/article_699.html.
7. **Seyedabrishami, S.**, Mamdoohi, A.R., Fowri, H.R., 2018, Independent and Joint Effects of Congestion Pricing and Public Transit Improvements Policies on Auto Work Trips , Sharif Journal of Civil Engineering 2-32 (4/2), 13-23.
http://sjce.journals.sharif.edu/article_1277.html.
8. **Seyedabrishami, S.**, Khanzad, I., Mamdoohi, A.R., Zarrinmehr, A., 2017, A Heuristic Method for Public Transportation Network Design using Route Generation Algorithm , Journal of Transportation Engineering 8(4), 643-654, http://jte.sinaweb.net/article_48711.html.
9. Askari, M., **Seyedabrishami, S.**, 2017, Predicting the number of freeway Discretionary lane changes using counting regression models , Rahvar, 1396(37), pp. 9-22, http://tale.jrl.police.ir/article_10893.html.
10. Saffarzadeh, M., **Seyedabrishami, S.**, Hasanpour, S., 2017, Route evaluation for hazardous material based on risk analysis-Case study of Tehran-Mazandaran roads, Quarterly Journal of Transportation Engineering, 8(3), pp. 405-421, http://jte.sinaweb.net/article_46073.html.
11. Mamdoohi, A., **Seyedabrishami, S.**, Hosseini, S., 2016, Urban Shopping activity duration modeling by Nonparametric- parametric duration models, case of Qazvin city , Quarterly Journal of Transportation Engineering, 8(1), pp. 141-154, http://jte.sinaweb.net/article_15942.html.
12. Zabihi Tari, M., Mazaheri, A., **Seyedabrishami, S.**, Saffarzadeh, M., 2016, Analysis of Iranian Air Passengers' Behavior Choosing Airlines in International Flights (Case study: Southeast Asia Flights) , Quarterly Journal of Transportation Engineering, 7(4), pp. 615-627, http://jte.sinaweb.net/article_15935.html.
13. Zarinmehr, A., Parvizi Omran, A., Shafahi, Y., **Seyedabrishami, S.**, 2015, Parallelization of Ant Colony Algorithm in Transportation Discrete Network Design , The Modares Journal of Civil Engineering 15(2), 37-50.
https://mcej.modares.ac.ir/browse.php?a_id=10956&sid=16&slc_lang=en.
14. Qouchanian, M., **Seyedabrishami, S.**, Fallah Zavareh, M., Broujerdian, A.M., 2015, Analysis of Influential Factors on Motorcycle Helmet Use in Mashhad City , Journal of Transportation Engineering 6(2), 213-226, http://jte.sinaweb.net/article_9838.html.
15. Mirbaha, B., Saffar, M., **Seyedabrishami, S.**, sharafaty S., Effect of Congestion Pricing on Users' Mode Split Using Stated Preference Technique , IQBQ. 2015; 14 (4) :137-148, <http://mcej.modares.ac.ir/article-16-7376-en.html>.
16. Mamdoohi, A.R., Seyedabrishami, S. and Baghestani, A., 2014. Final Analytical Comparison of Aggregate and Disaggregate Mode Choice Models Transferability. International Journal of Transportation Engineering, 2(2), pp.145-154, http://www.ijte.ir/article_7876.html.
17. Saffarzadeh, M., Tamannaie, M., Jamili, A., **Seyedabrishami, S.**, 2014, Train Timetabling Problem: Branch and Bound Algorithm and Heuristic Beam Search Algorithms, Case Study: Double Track Railways in Iran, Quarterly Journal of Transportation Engineering, 6(1), pp. 99-116, http://jte.sinaweb.net/article_7629.html.
18. Mirbaha, B., Saffarzadeh, M., **Seyedabrishami, S.**, 2014. A Route Guidance Model Considering System Optimality and User Needs in Deterministic Route Choice Criteria , Transportation Research Journal 11(3), 279-295.
<https://www.sid.ir/en/journal/ViewPaper.aspx?ID=497210>.

19. Saffarzadeh, M., Meshkati, S., **Seyedabrishami, S.**, 2013, Optimal Evaluation of Car Ownership Tax and Car Use Tax with an Approach for Minimization of Externalities: Case Study for Tehran , Quarterly Journal of Transportation Engineering, 5(2), pp. 201-216, http://jte.sinaweb.net/article_5656.html.
20. Mirbaha, B., Saffarzadeh, M., **Seyedabrishami, S.**, Sherafatipour, S., 2013, Users' Value of Time Estimation in Congestion Priced Urban Areas , Quarterly Journal of Transportation Engineering, 4(3), pp. 275-292, http://jte.sinaweb.net/article_3814.html.
21. **Seyedabrishami, S.**, Saffarzadeh, M., Sahebi, S., 2010, Evaluation of Road Safety Measures Based on Injury Crash Frequency , Rahvar Journal 9 (18), 85-104, <https://www.sid.ir/en/journal/ViewPaper.aspx?ID=288946>.
22. **Seyedabrishami, S.**, Karimi, A., 2010, Statistical Tests for Publication Bias in Safety Meta-analysis: A Case Study of Urban Traffic Calming Effects , Journal of Transportation Engineering 3(3), 215-226, http://jte.sinaweb.net/article_2661.html.

CONFERENCE PAPERS

1. **Seyedabrishami, S.**, Izadi, A.R., Rayaprolu, H.S. and Moeckel, R., 2019. Car ownership: A joint model for number of cars and fuel types. Transportation Research Procedia, 41.
2. **Seyedabrishami, S.** and Izadi, A.R., 2019. A Copula-Based Joint Model to Capture the Interaction between Mode and Departure Time Choices in Urban Trips. Transportation Research Procedia, 41, pp.722-730.
3. **Seyedabrishami, S.**, Rahimi, A., Zarinmehr, A., "Planning the Departure of Vacant Transit Vehicles to the Median Stops in a Single Line", World Conference on Transport Research (WCTR), Shanghai, China, 2016.
4. Mamdoohi, A.M., **Seyedabrishami, S.**, Baghestani, A.M., Mahpour, A., "A Transferability Study of Mode Choice Models in Terms of Structure and Parameters", 95th Annual Meeting Transportation Research board, January 10-14, Washington, United States, 2016.
5. Tamannaie, M., Saffarzadeh, M., Jamili, A., **Seyedabrishami, S.**, Bagheri, R., "Proposing a New Train Rescheduling Approach with Simultaneous Consideration of Cancelling, Delaying and Re-Ordering Policies". 94th Annual Meeting Transportation Research board, January 11-15, Washington, United States, 2015.
6. **Seyedabrishami, S.**, Mamdoohi, A.M., Khanzad, I., "A Heuristic Expansion of Route Generation Algorithm for Transit Network Design", 18th Euro Working Group on Transport (EWGT), 14-16 July, Delft, Netherlands, 2015.
7. **Seyedabrishami, S.**, Mamdoohi, A.M., Baghestani, A.H., "A Transferability Study of Mode Choice Models in Terms of Structure and Parameters", 14th International Conference on Travel Behaviour Research (IATBR), July 19-23, Leeds, U.K., 2015.
8. **Seyedabrishami, S.**, Nazemi, M., Shaffie, S., "Off-line Calibration of a Macroscopic Dynamic Traffic Assignment Model: Iterative Demand-Supply Parameters Estimation", IEEE 17th International Conference on Intelligent Transportation Systems (ITSC) October 8-11, Qingdao, China, 2014.
9. **Seyedabrishami, S.**, Saffarzadeh, M., Sahebi, S., "Identify Factors Influence Injury Severity of Pedestrians in Rural Crashes", Road Safety & Simulation Conference, October 23-25, Rome, Italy, 2013.

10. **Seyedabrishami, S.**, Sahebi, S., Qorbani, M.R., "Examination the Influence of Drugged Driving on Driver Injury Severity in Rural Crashes", Road Safety & Simulation Conference, October 23-25, Rome, Italy, 2013.
11. **Seyedabrishami, S.**, Saffarzadeh, M., Khosravi, H., "Effectiveness of Speed Camera in Rural Roads: A before-after Study (Case Study: Semnan City) ", 12th Iranian Traffic and Transportation Engineering Conference, April 2012
12. **Seyedabrishami, S.**, Saffarzadeh, M., and Mirbaha, B., "A Route Guidance Model Based on System Optimality Level and Deterministic Route Choice Behavior", 1st Symposium on Quantitative Method in Transportation (LATSIS), September 3-7, Lausanne, Switzerland, 2012.
13. **Seyedabrishami, S.**, Mamdoohi, A.R., Barzegar, A., Hassanpour, S., "Impact of Carpooling on fuel saving in Urban Transportation: Case Study of Tehran", 15th EWGT, September 10-13, Paris, France, 2012.
14. **Seyedabrishami, S.**, Shafahi, Y., "A Joint Model of Destination and Mode Choice for Urban Trips: A Disaggregate Approach", 12th WCTR, July 11-15, Lisbon, Portugal, 2010.
15. **Seyedabrishami, S.**, Nourbakhsh, S.M., Shafahi, Y., "Fuzzy Trip Distribution Models for Discretionary Trips", 11th International IEEE ITS Conference, Beijing, China, October 2008.
16. **Seyedabrishami, S.**, Sadat Hosseini, S.M., Rashidi, "Finding the Best Position for Installing Intelligent Speed Control Devices", 14th World ITS congress, Aalborg, Sweden, 2007.
17. **Seyedabrishami, S.**, Shafahi, Y., "School Trip Production Modeling Using Improved Adaptive-Network-Based Fuzzy Inference System", 9th International IEEE ITS Conference, Toronto, Canada, 2006.
18. **Seyedabrishami, S.**, Shafahi, Y., "Fuzzy-Neural Network Modeling for Compulsory and Non-Compulsory Trip Production in Large Cities" , 7th International Conference on Civil Engineering, Iran, 2006.
19. **Seyedabrishami, S.**, Shafahi, Y., "School Trip Attraction Modeling Using Neural & Fuzzy-Neural Approaches", 8th International IEEE ITS Conference, Vienna, Austria, 2005.

TEACHING EXPERIENCES

Technical University of Munich, Munich, Germany

June 2018-Present

School of Civil, Geo and Environmental Engineering

Title: Georg Förster Scholarship of the Alexander von Humboldt Foundation

Graduate Courses:

Transportation Planning in Developing Countries,

Tarbiat Modares University, Tehran, Iran

September 2011-Present

School of Civil & Environmental Engineering

Title: Assistant Professor

Graduate Courses:

Transportation Project Evaluation,

Transportation Simulation,

Traffic Safety Models,

Advanced Engineering Mathematics I,

Advanced Engineering Mathematics II (Only for PhD Students),

- Advanced Transportation Modelling (Only for PhD Students)
- Tarbiat Modares University, Tehran, Iran** January 2013-present
School of Arts
Title: Assistant Professor
Graduate Courses:
Urban Transportation Planning,
Regional Transportation Planning,
Urban Network Design
- Iran National University (Shahid Beheshti), Tehran, Iran** September 2010-
January 2011
School of Architecture & Urban Planning
Title: Adjunct Faculty
Graduate Courses:
Urban Transportation Planning,
Regional Transportation Planning
- Payam Noor University, Dubai, United Arab Emirates** January 2007-January
2009
School of Management Science
Title: Adjunct Faculty
Undergraduate Course:
Operation Research I
Graduate Courses:
Operation Research II,
Quantitative Decision Making,
Advanced Statistical Analysis
- Sharif University of Technology, Tehran, Iran** September 2004-
September 2010
Faculty of Civil Engineering,
Title: Teaching & Research Assistant
Graduate Courses:
Transportation Simulation,
Advanced Engineering Mathematics
Railway Engineering,
Airport Planning & Design

STUDENT SUPERVISION EXPERIENCES

Tarbiat Modares University, Tehran, Iran September 2010-Present
School of Civil & Environmental Engineering

Master's Supervision (31 Students: 28 Graduate, 3 Ongoing), project titles include:

1. Dynamic Traffic Assignment Using Macroscopic Simulation Model: A Case Study of Mashhad, 2010-2011.
2. Impact of Congestion Pricing on Transit Performance Using Stated Preference Survey: A Case Study of Tehran, 2011-2013
3. Analysis of Motorcycle Helmet Use Behaviour in Iran, 2011-2013
4. Impact of Flexible Work and School Schedule on Traffic Congestion Using Dynamic Assignment Models, 2011-2013
5. Nested Logit Models to Forecast Integrated Intercity Travel Demand in Iran, 2011-2013

6. Impacts of Low Cost Carrier Growth on Passengers' Airline Choices: A Case Study of Iran Travels to Southeast Asia, 2011-2013
7. Spatial Stability of Mode Choice Models Comparing Multiple Mode Choice Models in Several Comprehensive Transportation Studies, 2011-2013
8. A Heuristic Method in Transit Network Design in Metropolitan, 2012-2014
9. Impact of Congestion Pricing on Transit Share Using a Combination of RP/SP Data, 2012-2014
10. Scheduling of Deadheading Transit Departures to Cover Travel Demand Variability at Crowded Bus Stops, 2012-2014
11. Impact Assessment of Transit Travel Time Reliability on Passengers' Mode Choice, 2013-2015
12. Transit Network Design and Frequency Setting Using Ant Colony Algorithm, 2012-2015
13. Impact of Transit Fare Policies on Share of Transit Mode, Case Study: BRT in Tehran, 2013-2015
14. Analysis of Parameters Influence on Fuel Choice Behaviour of Drivers, 2013-2016
15. A Heuristic Method for Designing Feeder Network for Mass Transit System, 2013-2016
16. Assessment and Analysis Model for Influential Factors on Passengers of Bus Rapid Transit, 2013-2016.
17. Model of Satisfaction Determination for Passengers of Bus Rapid Transit, 2013-2016
18. Short-term Prediction of Public Bus Demand Using Smart Card Data, 2014-2017
19. Simulation Model for Assessment of Operational Strategies for Improving Performance of Bus Transit System, 2014-2017.
20. Analysis of Influential Factors on E-shopping Process and Urban Travel Demand, 2014-2017.
21. Impact Analysis of Autonomous Vehicle on Urban Transportation Network Performance, 2015-2018.
22. Impact Analysis of In-person and Online Shopping on Urban Travel Demand, 2015-2017.
23. Multiple Discrete-Continuous Extreme Value Model for Destination Choice in Non-mandatory Trip Purpose, 2015-2017.
24. Assessment Model for Considering Effects of Passengers' Heterogeneity in Urban Transportation Network on Mode Choice, 2015-2018
25. Optimizing Performance of Bus Transit System Applying Operational Improvement Strategies, 2016-2018.
26. Assessment Model for Ride Sharing of University Employees in Work Trips to the University, 2016-2019.
27. Safety Monitoring Model for Rural Road Network Using Surrogate Safety Measures, 2016-2019.
28. Safety Assessment Using Simulation of Conflicting Measures in Rural Road Network, 2017-2019.
29. Performance Assessment of Demand Responsive Transit System by Using Agent-based Simulation Model, 2018-2020
30. Deep Learning Algorithms for Forecasting Traffic Parameters in Rural Road Network, 2018-2020.

31. Forecasting Model for Demand Matrix of Bus Transit System Using Auto Fare Collection and Automatic Vehicle Location Data, 2019-Present
32. Prediction of Bus Transit Level of Service Using Machine Learning Algorithm, 2019-Present.

PhD Supervision (3 Students: 1 Graduate and 2 Ongoing):

1. Evaluation of Financial Policies Impacts on Urban Traffic Management, 2013-2019
2. Forecasting Traffic Parameters Using Deep Learning Algorithms and Big Data Obtained from Loop Detectors, 2016-Present
3. Detection and Prediction of Traffic Safety States by Temporal-Spatial Crash Data Analysis Using Machine Learning Algorithms, 2018-Present

AWARD AND HONOURS

- **Research Award**
 - Alexander von Humboldt Foundation Experienced Researcher, 90k Euro, 2016-2019
- **Visiting Scholar**
 - Visiting Scholar, University of New South Wales, Sydney, Australia, 2015

CONFERENCE ORGANIZER

- 13th World Conference on Transport Research Society (WCTR), Conference Organizer of WCTR Young Researchers, Rio, Brazil, July 2013
- 10th, 11th, 12th, 13th International Conference on Traffic & Transportation Engineering, Tehran, Iran, February 2011, 2012, 2013, 2014

JOURNAL REFEREE

- Journal of IEEE Transactions on Intelligent Transportation Systems, August 2008-present
- Journal of Transportation Letters, May 2014-present
- The Modares Journal of Civil Engineering , September 2010-present
- Transportation Engineering Journal , January 2010- present
- International Journal of Transportation Engineering, September 2012-present

COMPUTER SKILLS

Platforms and Tools – Microsoft Windows, Linux, DOS, Microsoft Office

Programming Languages – MATLAB, Visual Basic, Python

Econometric Software- SPSS, Stata

Simulation Software – Visum, Aimsun

Machine Learning Software- Weka, C4.5 (under UNIX), Rapidminer, LibSVM