

Seyedehsan Seyedabrishami

CONTACT INFORMATION

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Nasr Bridge, Al-e-Ahmad Highway, Tehran, Iran (P.O. Box: 14115-397)

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RESEARCH INTEREST

Public Transportation Planning, Urban and Intercity Travel Demand Modeling, Transportation Network Analysis, Environmental Impact of Transportation, Traffic Safety Models

CURRENT POSITION

Assistant Professor of Transportation Engineering
School of Civil & Environmental Engineering
Tarbiat Modares University

EDUCATION

Ph.D., Transportation Planning, March 2011

Sharif University of Technology

Dissertation Title: *Analysis of Uncertainty in Urban Transportation Demand Estimation Model Using Fuzzy Approaches*

M.Sc., Transportation Planning, September 2005

Sharif University of Technology

Thesis Title: *Trip Attraction Modelling Using Neural Network and Fuzzy Logic*

B.Sc., Civil Engineering, September 2003

Sharif University of Technology

Thesis Title: *Analysis of Non-Destructive Test (NDT), Schmidt Hammer, for Concrete Compressive Strength of Cylindrical Samples Using Neural Network*

JOURNAL PAPERS

1. Zarin Mehr, A., Saffarzadeh, M., **Seyedabrishami, S.**, "A local search algorithm for finding optimal transit routes configuration with elastic demand", International Transactions in Operational Research, In Press.
2. Zarinmehr, A., Khanzad, I., **Seyedabrishami, S.**, Saffarzadeh, M., "A Route Expansion Algorithm for Transit Routes Design: An Application to a Grid Network", International Journal of Transportation Engineering, In Press.
3. **Seyedabrishami, S.**, Mamdoohi, A.R., Fowri, H.R., "Independent and Joint Effects of Congestion Pricing and Public Transit Improvements Policies on Auto Work Trips" (in Persian), Sharif Journal of Civil Engineering, In Press.
4. Baghestani A.H., Mamdoohi, A.R., Mahpour, A.R., **Seyedabrishami, S.**, "Weighted Multiple Regression Analysis of Urban Work Tour-based Trips in Activity-based Framework" (in Persian), Journal of Civil and Environmental Engineering, In Press.
5. Tamannaei, M., Saffarzadeh, M., Jamili, A., **Seyedabrishami, S.**, "Simultaneous Train Rescheduling through Cancelling, Delaying, and Re-ordering Policies: Three-phase Solution Method with Guaranteed Optimality", SCIENTIA IRANICA Transaction A, In Press.
6. Khanzad, I., **Seyedabrishami, S.**, Mamdoohi, A.R., "A Novel Heuristic Approach for Transit Routes Design Based on Route Generation Algorithm" (in Persian), Journal of Transportation Engineering, In Press.
7. Zarin Mehr, A., Saffarzadeh, M., **Seyedabrishami, S.**, Nie, Y., "A path-based greedy algorithm for multi-objective transit routes design with elastic demand", Public Transport 8(2), 261-293, 2016.
8. Saffarzadeh, M., Mazaheri, A., Zabihi, M., **Seyedabrishami, S.**, "Analysis of Iranian passengers' behavior in choosing type of carrier in international air travel to East Asia", Journal of Air Transport Management 56, 123-130, 2016.
9. Nazari, F., **Seyedabrishami, S.**, Mamdoohi, A.R., "A Direct Demand Model of Departure Time and Mode for Intercity Passenger Trips", International Journal of Transportation Engineering 3(2), 125-141, 2015.
10. Quchanian, M., **Seyedabrishami, S.**, Groeger, J. A., "Identifying Psychological and Socio-Economic Factors Affecting Motorcycle Helmet Use", Accident Analysis and Prevention 85, 102-110, 2015.
11. Shafie, S., Nazemi, M., **Seyedabrishami, S.**, "Estimating Time Dependent Origin Destination Demand from Traffic Counts: Extended Gradient Method", Transportation Letters: the International Journal of Transportation Research 7(4), 210-218, 2015.
12. Baghestani, A.H., Mamdoohi, A.R., **Seyedabrishami, S.**, "A Comparison of Aggregate and Disaggregate Mode Choice Models Transferability", International Journal of Transportation Engineering 2(2), 145-154, 2014.
13. Tamannaei, M., Saffarzadeh, M., Jamili, A., **Seyedabrishami, S.**, "A Double-Track Train Rescheduling for Incident Conditions: Optimization Model and Decomposition Method", International Journal of Operational Research 26(1), 62-87, 2016.
14. Zarinmehr, A., Parvizi Omran, A., Shafahi, Y., **Seyedabrishami, S.**, "Parallelization of Ant Colony Algorithm in Transportation Discrete Network Design" (in Persian), The Modares Journal of Civil Engineering 15(2), 37-50, 2015.

15. Saffarzadeh, M., **Seyedabrishami, S.**, Hassanpour, S., "Route evaluation for hazardous material based on risk analysis-Case study of Tehran-Mazandaran roads" (in Persian), Journal of Transportation Engineering 7(1), 73-86, 2015.
16. Qouchanian, M., **Seyedabrishami, S.**, Fallah Zavareh, M., Broujerdian, A.M., "Analysis of Influential Factors on Motorcycle Helmet Use in Mashhad City" (in Persian), Journal of Transportation Engineering 6(2), 213-226, 2015.
17. Mamdoohi, A.R., **Seyedabrishami, S.**, Hosseini, S., Mahpour, A.R. "Application of Duration Model for Forecasting Shopping Activity Duration: Parametric and Non-parametric Model" (in Persian), Journal of Transportation Engineering, In Press.
18. Yazdanpanah, M., **Seyedabrishami, S.**, Quchanian, M., "Causal Model of Motorcyclist Helmet Use Behavior", International Journal of Management and Applied Science 4(1), pp. 98-108, 2015.
19. Tamannaei, M., Saffarzadeh, M., Jamili, A., **Seyedabrishami, S.**, "A Novel Train Rescheduling Approach In Double-Track Railways: Optimization Model and Solution Method Based on Simulated Annealing Algorithm", International Journal of Civil Engineering 1(14), 223-240, 2015.
20. Boroujerdian, A.M., Karimi, A., **Seyedabrishami, S.**, "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), 223-240, 2014.
21. Saffarzadeh, M., Mirbaha, B., **Seyedabrishami, S.**, "A Route Guidance Model Considering System Optimality and User Needs in Deterministic Route Choice Criteria" (in Persian), Transportation Research Journal 11(3), 279-295, 2014.
22. **Seyedabrishami, S.**, Shafahi, Y., "A Joint Model of Destination and Mode Choice for Urban Trips: A Disaggregate Approach", Transportation Planning and Technology 36(8), 703-721, 2013.
23. Saffarzadeh, M., Mirbaha, B., **Seyedabrishami, S.**, Pirdavani, A., "Evaluating the willingness to pay for urban congestion price zones (Case study of Tehran)", International Journal of Transportation Engineering 1(3), 199-210, 2013.
24. **Seyedabrishami, S.**, Mamdoohi, A.R., Barzegar, A., Hassanpour, S., "Impact of Carpooling on Fuel Saving in Urban Transportation: Case Study of Tehran", Procedia - Social and Behavioral Sciences 54 (Elsevier), 323-331, 2012.
25. Ramezani, H., Shafahi, Y., **Seyedabrishami, S.**, "Fuzzy Traffic Assignment in Urban Transportation Network Based on Perceived Travel Time", SCIENTIA IRANICA Transaction A 18 (2), 190-197, 2011.
26. **Seyedabrishami, S.**, Shafahi, Y., "Expert Knowledge-Guided Travel Demand Estimation: Neuro-Fuzzy Approach", Journal of Intelligent Transportation Systems 15(1), 13-27, 2011.
27. Ramezani, H., Shafahi, Y., **Seyedabrishami, S.**, "Shortest Path Problem in Urban Transportation Network Based on Drivers' Perceived Travel Time", SCIENTIA IRANICA Transaction A 17 (4), 285-296, 2010.
28. **Seyedabrishami, S.**, Karimi, A., "Statistical Tests for Publication Bias in Safety Meta-analysis: A Case Study of Urban Traffic Calming Effects" (in Persian), Journal of Transportation Engineering 3(3), 215-226, 2010.

29. **Seyedabrishami, S.**, Saffarzadeh, M., Sahebi, S., "Evaluation of Road Safety Measures Based on Injury Crash Frequency" (in Persian), Rahvar Journal 9 (18), 85-104, 2010.

CONFERENCE PAPERS

1. **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.
2. 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.
3. Tamannaei, 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.
4. **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.
5. **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.
6. **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.
7. **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.
8. **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.
9. **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
10. **Seyedabrishami, S.**, Mirbaha, B., Sherafatipour, S., "Willingness-to-pay of Private Car Users for Entering Congestion Pricing Zone (Case Study: Tehran CBD) ", 12th Iranian Traffic and Transportation Engineering Conference, April 2012
11. **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.
12. **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.

13. **Seyedabrishami, S.**, Nadafian, R., "Environmental Impact Assessment of New Transportation Infrastructure Using Combined Weighted Method, Case Study: SHUSH Highway", 11th Iranian Traffic and Transportation Engineering Conference, Tehran, Iran, 2011.
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.**, Reza Faturehchi, Edris Yargholi, Ahmad Salari, "Application of Linear Programming for Locating Traffic Counter in Rural Roads" (in Persian), 9th Iranian Traffic and Transportation Engineering Conference, Tehran, Iran, 2009 (The best contributed paper at traffic engineering section)
16. **Seyedabrishami, S.**, Nourbakhsh, S.M., Shafahi, Y., "Fuzzy Trip Distribution Models for Discretionary Trips", 11th International IEEE ITS Conference, Beijing, China, October 2008.
17. **Seyedabrishami, S.**, Fallah, M., Saffarzadeh, M., "A New Speed Enforcement Guide Using Handheld Laser Gun in Rural Roads" (in Persian), Police University, Tehran, Iran, 2007.
18. **Seyedabrishami, S.**, Sadat Hosseini, S.M., Rashidi, "Finding the Best Position for Installing Intelligent Speed Control Devices", 14th World ITS congress, Aalborg, Sweden, 2007.
19. **Seyedabrishami, S.**, Shafahi, Y., "School Trip Production Modeling Using Improved Adaptive-Network-Based Fuzzy Inference System", 9th International IEEE ITS Conference, Toronto, Canada, 2006.
20. **Seyedabrishami, S.**, Shafahi, Y., "Fuzzy-Neural Network Modeling for Compulsory and Non-Compulsory Trip Production in Large Cities" (in Persian), 7th International Conference on Civil Engineering, Iran, 2006.
21. **Seyedabrishami, S.**, Shafahi, Y., "School Trip Attraction Modeling Using Neural & Fuzzy-Neural Approaches", 8th International IEEE ITS Conference, Vienna, Austria, 2005.
22. **Seyedabrishami, S.**, Shafahi, Y., "Improving Generalization Capability of Neuro-Fuzzy Modeling for School Trip Production Using Parallel Estimation and Fuzzy Clustering" (in Persian), 7th Conference on Intelligent Systems, Tehran, Iran, 2005.
23. **Seyedabrishami, S.**, Fallah, M., "Application of Concordance Analysis for Economical Analysis of New Transportation Infrastructure" (in Persian), 8th Iranian Traffic and Transportation Engineering Conference, Tehran, Iran, 2005. (The best contributed paper at transportation economic section)

TEACHING EXPERIENCES

Tarbiat Modares University, Tehran, Iran

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

September 2010-Present

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 (14 Students: 10 Graduate, 4 Ongoing):

1. Dynamic Traffic Assignment Using Macroscopic Simulation Model: A Case Study of Mashad, 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 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

PhD Supervision & Co-supervision (4 Students: 1 Graduate and 3 Ongoing):

1. Analysis of Passenger Itinerary Choice Behaviour in Iran Using a Stated Preference Survey, 2010-2015
2. Evaluation of Financial Policies Impacts on Urban Traffic Management, 2013-present
3. Transit Network Design and Frequency Setting Considering Demand Elasticity, 2011-2016
4. Train Rescheduling Method for Double Track Network Using Optimization Model, 2011-2014.

CONSULTANCY PROJECTS

Tarbiat Modares University

Tehran, Iran

Title: Director

1. Bus Rapid Transit Network Design in Yazd (A City in Iran), Title: Director, September 2011-2012
2. Evaluation of Financial Policies in Urban Traffic Management in Tehran Metropolitan, Title: Director, 2014-present
3. Short Time Prediction of Bus Station Demand, 2014-present
4. Rural Forecasting Traffic Status Model Using Data Collected by ITS Systems, 2016-present

Title: Associate Director

5. Comprehensive Transportation Study in Mashad (The second most populous city in Iran), September 2012-present

Sharif University of Technology

Tehran, Iran

Title: Main Researcher

1. Application of count data regression model for estimating appropriate number of telecommuting days for employees
2. Travel demand modeling using adaptive-network-based fuzzy inference system

3. Introduction to p-median problems in transportation engineering and their solution methods
4. Application of stochastic dynamic knapsack problem in traffic assignment

Title: Research Assistant

5. SHIRAZ (a large city in Iran) Comprehensive Transportation Study

INDUSTRY EXPERIENCES

Tehran Comprehensive Transportation & Traffic Studies Co.

- Consultant, November 2013- present
 - *Developing Tehran activity-base model*

Tarahan Parseh, Transportation Research Institute

Tehran, Iran

- Consultant, August 2010- present (<http://www.parsehtri.com/About%20us-Colleagues-9-en.html>)
 - *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- present
 - *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*

TECHNICAL REPORTS

Seyedehsan Seyedabrishami, Saeid Sherafatipour, Babak Mirbaha, "Analysis of Travelers' Mode Shift with Congestion Pricing in Tehran Central Business District", Tarahan Parsah Transportation Research Institute, Client: Tehran Municipality, 2012.

Seyedehsan Seyedabrishami, Farshid Fariborzi, "A Guide for Duties of SOS Centers in Rural Roads", KIA Consulting Company, Client: Iran Ministry of Road and Transportation, 2008

Seyedehsan Seyedabrishami, Mohsen Fallah, Gholamreza Masumi, "Guidebook for Application of Intelligent Speed Control Systems in Rural Roads", ARG Consulting Company, Client: Iran Road Transportation and Maintenance Organization, 2008

Seyedehsan Seyedabrishami, Reza Faturechi, "Study on Estimation Methods of Travel Time in Urban Arterials" (in Persian), ARG Consulting Company, Client: Tehran Municipality, 2008

Seyedehsan Seyedabrishami, Edris Yargholi, "Traffic Monitoring Guide for Iran Rural Roads" (in Persian), ARG Consulting Company, Client: Iran Road Transportation and Maintenance Organization, 2008

Seyedehsan Seyedabrishami, Babak Mirbaha, Farshid Fariborzi, Vahid Abolhassannejad, "Guidelines for Transportation of Dangerous Goods" (in Persian), KIA Consulting Company, Client: Iran Ministry of Road and Transportation, 2007

Seyedehsan Seyedabrishami, Mohsen Fallah, Gholamreza Masumi, "Parameters Influencing Zonal Speed Limit in Iran Rural Roads", ARG Consulting Company, Client: Iran Ministry of Road and Transportation, 2007

Seyedehsan Seyedabrishami, Seyedmahmoud Dibaj, "Rural Road Safety Program for Motorcycles" (in Persian), ARG Consulting Company, Client: Iran Ministry of Road and Transportation, 2006

Seyedehsan Seyedabrishami, Sroush Amraji, Ahmad Salari, "Design of an Intelligent Transportation System (ITS) Architecture for Karaj-Chalus Road in Iran" (in Persian), ARG Consulting Company, Client: Iran Ministry of Road and Transportation, 2006

Seyedehsan Seyedabrishami, Mohsen Fallah, Gholamreza Masumi, "Speed Management Guidelines in Iran Rural Roads" (in Persian), ARG Consulting Company, Client: Iran Ministry of Road and Transportation, 2005

PROFESSIONAL ACTIVITIES AND POSITIONS

- **Visiting Scholar**
 - University of New South Wales, Sydney, Australia, March 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 (in Persian), September 2010-present
- Transportation Engineering Journal (in Persian), January 2010- present
- International Journal of Transportation Engineering, September 2012-present