

Presentations & Publications, Dr. Siamak Ardekani

Refereed Publications

"Management of Urban Road Networks following Man-Made or Natural Disasters," Safety and Security Engineering, WIT Press, 2005, PP.541-546.

"Development and Field Testing of an On-Board Alcohol Detection Sensor," Proceedings of the Intelligent Transportation Systems Safety and Security Conference, Miami Beach, FL, March 24-25, 2004 (with M. Allam and P.Oza).

"An Observational Study of Lane Changing on Basic Freeway Segment," Transportation Research Record, 2002 (CD-ROM) (with M.S. Uddin)

"Network Design for the Personalized Public Transit Service," Transportation Research Record, 2002 (CD-ROM) (with B. Pashaie)

"A PC-Based Decision Tool for Roadway Incident Management," ASCE Journal of Computer-Aided Civil and Infrastructure Engineering, Vol 14, No.2, May 1999, PP.299-307 (With S. Govind and A. Kazmi).

"An Observational Study of the Network-Level Traffic Variables," Transportation Research, Vol.32A, No.4, May 1998, PP.271-278 (With B. Amini and J. Shahi).

"A GIS Approach to Roadway Incident Management," in Proceedings of the 4th International Conference on Civil & Environmental Engineering, Volume III, May 1997, PP. 49-59 (With A.M. Kazmi and M.S. Ahmadi).

"A Simulation Study of the Operational Performance of Left-Turn Phasing and Indication Sequences," Transportation Science, Vol.30, No.2, May 1996. (With S. Asante and J.C. Williams).

"Calibrating NETSIM for a CBD Using the Two-Fluid Model," Proceedings of the Advanced Traffic Management Conference, PP. 169-184, October 1993.

"Selection Criteria for Left-Turn Phasing and Indication Sequence," Transportation Research Record 1421, 1993, PP.11-20 (with S.A. Asante and J.C. Williams).

"Motorist Understanding of Left-Turn Signal Indications and Auxiliary Signs," Transportation Research Record 1376, 1992, PP. 57-63 (with J.C. Williams and S.A. Asante).

"The Influence of Urban Network Features on the Quality of Traffic Service," Transportation Research Record 1358, 1992, PP. 6-12 (with J.C. Williams and S. Bhat).

"Transportation Operations Following the 1989 Loma Prieta Earthquake," Transportation Quarterly Journal, Vol. XLVI, No.2, April 1992.

"Economic Evaluation of Toll Plaza Operations," Transportation Research Record 1305, 1991, PP. 160-168, (with F.J. Torres).

"Audible Pedestrian Signals Current Practices and Future Needs," ITE Journal, Vol. 60, No. 6, June 1990 (with M. Oliver and J. Fegan).

"Dematerialization," in Technology and Environment, National Academy Press, Washington, D.C., 1989 (with R. Herman and J. Ausubel). Also published by editor's request in Technological Forecasting and Social Change, Vol. 38, No. 4, 1990.

"A Two Point Vehicle Classification System," Transportation Research Record 1215, 1989 (with B.C. McCullough and L.R. Huang).

"A Heuristic Shortest Path Method for Emergency Vehicle Assignment," Transportation Research Record 1168, 1988 (with A.G. Hobeika, R. Sivanandan, and P. Lockwood).

"The Dynamic Characterization of Cities," in Cities and Their Vital Systems, National Academy Press, Washington, D.C., 1988 (with R. Herman, S. Govind, and E. Dona).

"Trip Time Stop Time Studies of Extreme Driver Behaviors," Transportation Research, Vol. 22A, No. 6, 1988 (with R. Herman and L. Malakhoff).

"Minimum Passing Sight Distance for Completing or Aborting the Passing Maneuver," ITE Journal, Vol. 58, No. 7, July 1988 (with F.A. Ohene).

"Logistics Decisions Following Urban Disasters," Microcomputers in Civil & Environmental Engineering, Vol. 3, No. 1, 1988 (with A.G.Hobeika and D.L. Han).

"Logistics Problems in the Aftermath of the 1985 Mexico City Earthquake," Transportation Quarterly, Vol. XLII, No. 1, 1988 (with A.G. Hobeika).

"A Taxicab Fare Policy Formula Based on Fuel Consumption Observations," Transportation Research Record 1103, 1986 (with B. Jamei and R. Herman).

"Urban Network Wide Traffic Variables and Their Relations," Transportation Science, Vol. 21, No. 1, February 1987 (with R. Herman).

"A Comparison of the Quality of Traffic in the Downtown Networks of Various Cities Around the World," Traffic Engineering and Control, Vol. 26, No. 12, December 1985 (with R.Herman).

"El Modelo Bifluído y La Calidad del Tránsito en La Ciudad de México," Revista Ingeniería Civil, Colegio de Ingenieros Civiles de México, January/February 1985 (with V. Torres and R. Herman).

"The Influence of Stops on Vehicle Fuel Consumption in Urban Traffic," Transportation Science, Vol. 19, No. 1, 1985 (with R. Herman).

"Characterizing Traffic Conditions in Urban Areas, Transportation Science, Vol. 18, No. 2, 1984 (with R. Herman).

Other Publications

"Development of Design Criteria for CCTV Camera Poles," TxDOT Research Report 0-4470-F, August 2005 (with A. Abolmaali and J. Jung)

"Developing a Comprehensive Pricing Evaluation Model for Managed Lanes," TxDOT Research Report 0-4818-F, June 2005 (with J. Li, S. Govind, S.P. Mattingly, J.C. Williams, and R. Cole).

"User Guide to Toll Pricing Model v2.0," TxDOT Research Report 0-4818-1, April 2005 (with S. Govind, K. Abdelghany, S.P. Mattingly, A. Upayokin, and J.C. Williams).

"Learning Travelers' Attitudes Towards Managed Lanes," Proceedings of the Third International Conference on Traffic and Transportation Studies (ICTTS'2002), Guilin, China, July 23-25, 2002 (with J. Li, R. Cole, S. Govind and J.C. Williams).

"A Sensor for Remote Detection of Drunk Driving," Proceedings of the 5th International Conference on Engineering Design and Automation, Las Vegas, NV, August 5-8, 2001, CD Reference #111 (with D. Singh and J.W. Bredow).

"Pricing Strategies for Managed Lanes," TxDOT Research Report 0-4009-F, December 2001 (with J. Li, S. Govind, J.C. Williams, and R. Cole).

"A Framework for the Personalized Public Transit Network Design," Proceedings of the 4th International Conference on Engineering Design and Automation, Orlando, FL, July 30-August 2, 2000, PP.110-115 (with B. Pashaie and M. Kuimil).

"Abstracts for the 1998 Transportation Science Section Dissertation Prize Competition," Journal of Transportation Science, Vol.33, No.1, February 1999, PP.124-131.

"A Framework for the Personalized Public Transportation Concept," Proceedings of the 2nd International Conference on Engineering Design and Automation, Maui, August 9-12, 1998 (with K. Olyai, B. Pashaie, and A. Mairzaei).

"A Survey of Seat Belt Usage in the Lower Rio Grand Valley of Texas," Center for Transportation Studies Research Report, October 1997 (with A.C. Lira).

"Planning a Jitney System for Arlington, Texas," Center for Transportation Studies Research Report, August 1997 (with S. Govind).

"A PC-Based Decision Tool for Roadway Incident Management," In Traffic Congestion and Traffic Safety in the 21st Century, American Society of Civil Engineers, June 1997, PP. 361-367 (With A.M. Kazmi and M.S. Ahmadi).

"A Quick Response Decision Tool for Traffic Diversion Around Roadway Incidents," The Texas Higher Education Coordinating Board Advanced Technology Program Research Report 3656-024, Center for Transportation Studies, The University of Texas at Arlington, October 1996 (with M.S. Ahmadi and A.M. Kazmi).

"Impact of Traffic Signal Installation at Marginally Warranted Intersection," TxDOT Research Report 1350-1F, March 1996 (with J.C. Williams).

"Detection and Mitigation of Roadway Hazards for Bicyclists," Report No. FHWA/TXDOT-96/1394-2F, December 1995 (with S. Govind, S.P. Mattingly, A. Demers, H. Mahmassani, and D. Taylor).

"Bicycle Hazard Mitigation Manual," Report No. FHWA/TXDOT-96/1394-1, December 1995 (with A. Demers, A. Suddarth, H.S. Mahmassani, and S. Govind).

"Transportation Emergency Management of Post-Incident Operations - User Manual," The University of Texas at Arlington, October 1995.

"Post-Earthquake Transportation Operations Following the 1994 Northridge Earthquake," Proceedings of the ASCE 4th U.S. Conference on Lifeline Earthquake Engineering, San Francisco, pp 636-643, August 1995.

"Detection and Mitigation of Roadway Hazards for Bicyclists," TxDOT Research Report No. 1394-1, November 1994.

"A Comprehensive IVHS Plan for Texas," TxDOT Final Project Report No.1346-1F, January 1994.

"Selection Criteria for Left-Turn Phasing, Indication Sequence, and Auxiliary Sign," TxDOT Final Project Report No. 1256-1F, February 1993 (with S.A. Asante and J.C. Williams).

"The Influence of Urban Network Features on the Quality of Traffic Service," The Texas Higher Education Coordinating Board Advanced Research Program Report 3656-109, The University of Texas at Arlington, May 1992 (with C.S. Bhat and J.C. Williams).

"A Decision Tool for Transportation Operations Following Urban Disasters," Final Project Report to the National Science Foundation (Grant # BCS-9005042), April 1992.

"Guidelines for the Selection of Left-Turn Phase Sequence and Signal Indications," Proceedings of the ITE Western Region Meeting, PP 137-142, 11-14 July 1993, Las Vegas, Nevada (with J.C. Williams and S.A. Asante).

"Transportation Operations Following The 1989 Loma Prieta Earthquake," An Interim Project Report to the National Science Foundation (Grant # BCS-9005042), May 1991.

"Urban Transportation Problems After a Major Earthquake; A Case Study of the 1985 Mexico City Earthquake," Proceedings of the 11th IRF World Meeting, 16-21 April 1989, Seoul, Korea (with A.G. Hobeika).

"A Route Guidance System Under Emergency Conditions," Proceedings of the First International Conference on Applications of Advanced Technologies in Transportation Engineering, PP 211-215, San Diego, 6-8 February 1989 (with A.G. Hobeika and R. Sivananda).

"Entrepreneurial Ventures for Suburban/Intercity Private Transit Operators," Report No. MAUTC-VPI03-0189F, NTIS Accession No. PB92-104744, U.S. Department of Transportation, July 1989 (with T.J. English and W.S. Powers).

"A Low Cost Fiber Optic Weigh In Motion Sensor," Research Report SHRP ID/UFR 90 002, Strategic Highway Research Program, National Research Council, 1990 (with A.S. Jaazi and M. Mehdikhani).

"A Low Cost Fiber Optic Weigh In Motion Sensor," Research Report SHRP IDEA/FR 89 001, Strategic Highway Research Program, National Research Council, December 1989 (with A.S. Jaazi).

"A Decision Support System for Emergency Transportation Operations Following Major Urban Earthquakes: A Case Study of the 1985 Mexico City Earthquake," Final Project Report to the National Science Foundation and the Earthquake Engineering Research Institute, October 1987 (with A.G. Hobeika and A. Martinez Marquez).

"Transportation Problems and Needs in the Aftermath of the 1985 Mexico City Earthquake," An Interim Project Report to the National Science Foundation and the Earthquake Engineering Research Institute, May 1987 (with A.G. Hobeika and A. Martinez Marquez).

"The Dynamic Characterization of Cities," Submitted to the National Academy of Engineering Workshop on the Future of Infrastructure in the U.S., August 11-13, 1984, Woods Hole, Massachusetts (with R. Herman, S. Govind, and E. Dona).

"The Two Fluid Characterization of Urban Traffic: Theory, Observation, and Experiment," Ph.D. Dissertation, The University of Texas at Austin, December 1984.

"Characterizing the Quality of Traffic Service in Urban Street Networks," Report No. 304 2F, Center for Transportation Research, The University of Texas at Austin, November 1984.

"Quality of Traffic Service," Report No. 304 1, Center for Transportation Research, The University of Texas at Austin, June 1982.

Conference Presentations

"Management of Urban Road Networks following Man-Made or Natural Disasters," The 1st Annual Conference on Safety and Security Engineering, Rome, Italy, June 13-15, 2005.

"Pricing Strategies for Managed Lanes," The 7th Annual Texas Transportation Summit, Irving, TX, August 12, 2004 (with J. Li and S. Govind).

"Development and Field Testing of an On-Board Alcohol Detection Sensor," The Intelligent Transportation Systems Safety and Security Conference, Miami Beach, FL, March 25, 2004 (with M. Allam and P.Oza).

"A Comparison of Quality of Traffic Service over Time in Dallas and Arlington," The Fort Worth Section of the Texas Institute of Transportation Engineers, Fort Worth, TX, October 16, 2003 (with D. Yasmin).

"Development and Field Testing of An On-Board Alcohol Detection Sensor," The 82nd Annual Meeting of the Transportation Research Board, January 2003, Washington, D.C. (with P. Oza and M. Allam).

"An In-Vehicle Alcohol Sensor – Sensitivity to Ambient Interferences," The National Meeting of The Institute for Operations Research and Management Science, San Jose, CA, November 2002.

"An Observational Study of Lane Changing on Basic Freeway Segment," Transportation Research Record, 2002, The 81th Transportation Research Board Meeting, Washington, D.C., January 2002 (with M.S. Uddin).

"Development and Testing of an Electro-Chemical Sensor for Remote Detection of Drunk Driving," The Fort Worth Section of the Texas Institute of Transportation Engineers, Fort Worth, TX, November 15, 2001.

"A Sensor for Remote Detection of Drunk Driving," The 5th International Conference on Engineering Design and Automation, Las Vegas, NV, August 5-8, 2001.

"Modeling Lane-Changing Using a System of Partial Differential Equations," The National Meeting of The Institute for Operations Research and Management Science, Salt Lake City, UT, May 2000 (with M. Ghandehari)

"Two-Fluid Characterization of Urban Traffic: Theory, Observation, and Experiment," The 77th Transportation Research Board Meeting, January 1998, Washington, D.C.

"Impacts of Signal Installation at Marginally Warranted Intersections," The 77th Annual Transportation Research Board Meeting, January 1998, Washington, D.C. (With J.C. Williams).

"Field Calibration of a Traffic Diversion Algorithm," The Fall 1997 National Meeting of The Institute for Operations Research and Management Science, Dallas, TX, October 26-29, 1997 (with M.A. McDonald).

"A PC-Based Decision Tool for Roadway Incident Management," The ASCE Conference on Traffic Congestion and Traffic Safety in the 21st Century, Chicago, IL, June 8-11, 1997.

"A Decision Tool for Traffic Incident Management," Dallas Branch of the American Society of Civil Engineers, February 3, 1997.

"Transportation Management in the Aftermath of Major Urban Disruptions," Dallas Branch of the Texas Society of Professional Engineers, October 15, 1996.

"The Dallas Area Rapid Transit's Personalized Public Transportation Operational Test," The Joint ITE and ASCE 3rd Annual Conference on Western Transportation Issues, Las Vegas, NV, September 27-28, 1996.

"A Heuristic Algorithm for Quick-Response Traffic Diversion," The Fall 1995 Institute for Operations Research and Management Sciences Conference, New Orleans, LA, October 29-November 1, 1995.

"A Quick-Response Tool for Traffic Management in the Aftermath of Major Incidents," The Joint ITE and ASCE 2nd Annual Conference on Western Transportation Issues, Las Vegas, NV, September 15-16, 1995.

"Post-Quake Transportation Operations Following the 1994 Northridge Earthquake," The ASCE 4th U.S. Conference on Lifeline Earthquake Engineering, San Francisco, CA, August 10-12, 1995.

"Traffic Management in the Aftermath of Major Incidents," Fort Worth Branch of The Texas ASCE Section, July 17, 1995.

"Post-Quake Transportation Operations Following the 1994 Northridge Earthquake," The 74th Transportation Research Board Meeting, January 1995, Washington, D.C. (With A. Shah).

"Effect of Geometric and Control Features of a Traffic Network on the Quality of Traffic Service," The 74th Transportation Research Board Meeting, January 1995, Washington, D.C. (With C.S. Bhat and J.C. Williams).

"Northridge Earthquake Investigation Report on Traffic Management," The Meeting of the ASCE Post-Earthquake Investigation Committee, Los Angeles, CA, September 1994.

"A Simulation Study of the Operational Performance of the Left-Turn Signal Phasing Design," The Joint National ORSA/TIMS Meeting, Phoenix, AZ, November 1993 (with S. Asante and J.C. Williams).

"Calibrating NETSIM for A CBD Using Two Fluid Model," The ATMS Conference on Management of Large Urban Systems, St. Petersburg, FL, October 1993 (with R.W. Denney, J.C. Williams and C.S. Bhat).

"Selection Criteria for Left-Turn Phasing Indication Sequence and Auxiliary Sign," Presented at the TexITE Summer Meeting, Amarillo, TX, June 1992 (with J.C. Williams and S. Asante).

"Traffic Management Following Major Earthquakes," The Joint National ORSA/TIMS Meeting, San Francisco, CA, November 1992.

"The Influence of Urban Network Features on the Quality of Traffic Service," The 71st Transportation Research Board Meeting, Washington, D.C., January 1992 (with J.C. Williams and S. Bhat).

"Motorists' Understanding of Left-Turn Signals," The 71st Transportation Research Board Meeting, Washington, D.C., January 1992 (with J.C. Williams and S. Asante).

"Traffic Diversion Around Link Closures," The Joint National ORSA/TIMS Meeting, Anaheim, CA, November 1991 (with A. Martinez-Marquez).

"The Influence of Urban Network Features on Traffic Service Quality," The Joint National ORSA/TIMS Meeting, Anaheim, CA, November 1991 (with J.C. Williams).

"Motorists' Understanding of Left-Turn Signals and Auxiliary Signs," Texas ASCE Conference, South Padre, TX, October 1991 (with J.C. Williams).

"Aerial Observation of Freeway Lane Changing Behavior," Presented at the Joint National ORSA/TIMS Meeting, Las Vegas, NV, May 1990.

"An Interactive Transportation Decision Support Software for Major Urban Disasters," Presented at the Joint National ORSA/TIMS Meeting, Washington, D.C., April 1988.

"Transportation Related Emergency Response in the Aftermath of the 1985 Mexico Earthquake," Presented at the Joint National ORSA/TIMS Meeting, St. Louis, MO, October 1987 (with A.G. Hobeika).

"Traffic Fluctuations in Urban Networks A Comparison of Four Cities," Presented at the Joint National ORSA/TIMS Meeting, Miami Beach, FL, October 1986.