

**Northwestern University
McCormick School of Engineering and Applied Science
Standard Academic Resume**

FULL NAME: Hani S. Mahmassani
TITLE: William A. Patterson Distinguished Chair in Transportation
Director, Transportation Center

DATE OF BIRTH: 01/06/56

CITIZENSHIP: U.S.

EDUCATION:

International College, Beirut, Lebanon	Math Section	Diploma	Spring 1973
American University of Beirut	Civil Engineering		Fall 93-Summer 1975
University of Houston	Civil Engineering	B. S.C.E.	December 1976
Purdue University	Civil Engineering (Transportation, minor in OR and Statistics)	M.S.	August 1978
Massachusetts Institute of Technology	Transportation Systems	Ph.D.	January 1982

PROFESSIONAL REGISTRATION: Texas, P.E. # 57545

CURRENT AND PREVIOUS ACADEMIC POSITIONS:

University of Texas at Austin	Assistant Professor of Civil Engineering	Spring 1982 - Summer 1986
University of Texas at Austin	Associate Professor of Civil Eng.	Fall 1986-Fall 1991
	Banks McLaurin Fellowship in Engineering	Fall 1986-Fall 1991
University of Texas at Austin	Director, Advanced Institute for Transportation Infrastructure Engineering and Management	Fall 1988-August 2002
University of Texas at Austin	Hayden Head Professorship in Civil Engineering	Fall 1991-Fall 1996
University of Texas at Austin	Professor of Management Science and Information Systems	Fall 1994-August 2002
University of Texas at Austin	L. B. Meaders Professorship in Engineering	Fall 1996-Fall 2000
University of Texas at Austin	Area Coordinator, Transportation Group (Civil Engineering)	Fall 1998-August 2002
University of Texas at Austin	Adnan Abou-Ayyash Centennial Professorship in Transportation Engineering	Fall 2000-August 2002
University of Maryland	Director, Maryland Transportation Initiative	Fall 2002-August 2006

University of Maryland	Charles Irish Sr. Chair in Civil and Environmental Engineering	Fall 2002-August 2007
	Affiliated Faculty, Master of Engineering and Public Policy Program	Fall 2005-August 2007
	Member, Faculty of Applied Mathematics and Scientific Computation	Fall 2005-August 2007
	Affiliate Professor, Decision and Information Technologies Dept., R.H. Smith School of Business	Fall 2006-August 2007
Northwestern University	William A. Patterson Distinguished Chair in Transportation	Fall 2007-Present
	Professor, Civil and Environmental Engineering, McCormick School of Engineering and Applied Science	Fall 2007-Present
	Professor (courtesy), Managerial Economics and Decision Sciences, Kellogg School of Management	Fall 2007-Present
Northwestern University	Professor (courtesy), Industrial Engineering and Management Sciences, McCormick School of Engineering and Applied Science	Fall 2008-Present
Northwestern University	Director, Transportation Center	October 2008-Present

OTHER PROFESSIONAL EXPERIENCE

Purdue University	Graduate Instructor in Research, Joint Highway Research Project	Jan. 1977-Aug. 1978
Massachusetts Institute of Technology	Instructor of short course entitled <i>Traffic Engineering: Operations and Controls</i>	Jan. 1979
Massachusetts Institute of Technology	Research Assistant on Freight Demand Analysis Project	Sept. 1978-Aug. 1979
	Research Assistant on Cairo Urban Transportation Project	Sept. 1979-July 1981
	Teaching Assistant in Transportation Systems Division, Civil Engineering Department	Sept. 1981-Dec. 1981
Massachusetts Institute of Technology	Instructor in Executive Summer Short Course on <i>Modeling and Simulation for Dynamic Transportation Management</i>	1995-Present
American University of Beirut	University Research Board Visiting Scholar in Civil and Environmental Engineering Dept.	May 2006-June 2006

CONSULTING:

Bay Back Neighborhood Association, Boston, Massachusetts	<i>Review of traffic and environmental impact studies for major urban center</i>	1979
HMM Associates, Lexington, Massachusetts	<i>Emergency evacuation planning studies.</i>	1979-1982
Yellow Checker and Harlem Cab Companies, Austin, Texas	<i>Analysis of response time performance of taxicab operations</i>	1984
Round-Rock Independent School System, Round Rock, Texas	<i>Location study for bus transportation garage facilities and operations</i>	July 1985
Roberts Express, Inc., Freight Transportation Systems	<i>Service issues associated with application to the Texas Railroad Commission</i>	1986
McClelland Engineers- Houston, Texas	<i>Engineering statistics, hazardous materials</i>	1986-1987
General Motors Research Labs., Warren, Michigan	<i>Modeling congestion in networks</i>	May 1989
Lone Star Industries	<i>Engineering statistics, survival modeling and expert witness in connection with litigation</i>	1990-1994
WHM, Austin, Texas	<i>Intelligent Transportation Systems Analysis, market research</i>	1993-2000
Loral Corporation Bethesda, MD.	<i>Advisory panel on FHWA contract to develop Advanced Traffic Management Center Architecture</i>	1992-1994
IBI Corporation Boston, MA.	<i>Proposal preparation for Intelligent Transportation Systems (ITS) traffic simulation contract</i>	1993-1995
Booz-Allen, Inc. McLean, VA	<i>Intelligent Transportation Systems (ITS) Operational Test support and various other ITS - related proposals</i>	1994-1997
Urban-A, Beirut, Lebanon	<i>National transportation studies and strategic planning for reconstruction; logistics</i>	1996-2000
Autoridad de Carreteras, San Juan, Puerto Rico (Multisystems, Inc.)	<i>Panel reviewer, ITS deployment plan for San Juan</i>	1996-1999
Ministry of Environment, Republic of Lebanon (through Transtech-Fichtner EU Aid Consortium)	<i>Transportation and air quality, development of automotive fuel policy</i>	1996-1997
Port Authority of Saida, Republic of Lebanon	<i>Feasibility study of new container port</i>	1997-1999
Daimler-Benz, Stuttgart, Germany	<i>External evaluator of R&D in traffic and telematics</i>	1997-1999
Technopolis, Inc. Paris, France	<i>PREDIT (R&D) program evaluation for French Government</i>	1998-1999
INRETS Lyon, France	<i>Research program performance evaluation</i>	2000 and 2005
VSNU Association of Universities in the Netherlands	<i>Evaluation of Civil Engineering research programs in Netherlands</i>	2001, 2005 and 2012

Bay Area Council San Francisco, California	<i>Development of mobility index</i>	July 2001
Millenium, Inc. Beirut, Lebanon	<i>Transportation planning and operations, ITS, Development</i>	December 2001-May 2004
Helmholtz Programme, German Aerospace Centre (DLR), Cologne, Germany	<i>External evaluator of R&D program in Transport</i>	September 2002
Cambridge Systematics, Inc.	<i>Advisor on Next Generation Simulation (NGSIM) project, FHWA</i>	September 2002-August 2006
DHV, The Netherlands	<i>Transportation planning and dynamic assignment</i>	April 2003-December 2012
Ministry of Municipal and Rural Affairs, Kingdom of Saudi Arabia	<i>Crowd behavior modeling and evacuation (Hajj)</i>	May – July 2004
Science Applications International (SAIC)	<i>Advisor on Integrated Corridor Management Project, FHWA</i>	August 2005-August 2006
NTT Corp., Japan	<i>Consumer behavior, demand analysis</i>	April 2005
World Resources Institute, Washington, DC	<i>Emissions modeling, mobility management</i>	November 2005-May 2008
Freightdesk, Inc., McLean, VA	<i>Evaluation of freight tracking system in Jordan</i>	January 2006-2008
Eldorado Stone, Inc., San Diego, CA	<i>Engineering statistics in connection with patent litigation</i>	September 2006-March 2007
Decisive Analytics, Inc. Arlington, VA	<i>Demand forecasting, real-time scheduling</i>	October 2006-October 2008
Ministry of Higher Education and King AbdulAziz University, Kingdom of Saudi Arabia (KSA)	<i>Makkah Central Area Study, Crowd behavior modeling, evacuation and service logistics (Hajj); mobility and transport solutions</i>	September 2008 – December 2013
Hajj Research Institute and Hajj Centre of Research Excellence, Umm-Al-Qura University, KSA	<i>Strategic planning and research program advisory</i>	May 2010 - Present
Royal Institute of Technology, KTH-Sweden	<i>Strategic program advisory, Transport Platform</i>	September 2010
SETS Inc., Beirut, Lebanon	<i>Transport Strategy</i>	September 2011-March 2014
Dar Al-Handassah, Beirut and Cairo	<i>Crowd dynamics and simulation (Hajj-related)</i>	October 2012-2016
King Abdullah City for Atomic and Renewable Energy, KSA	<i>Strategic planning, technology innovation</i>	May 2013 – December 2013
Booz-Allen Hamilton, Inc. Washington, DC	<i>Ridesharing program assessment for US DOT</i>	2014-2016
IFSTTAR Lyon, France	<i>Research program performance evaluation</i>	2014
Metropolitan Transportation Commission, San Francisco Bay Area, CA	<i>Transit system modeling</i>	2017-2018

HONORS AND AWARDS:

Penrose Award, International College, 1973.

Dean's Honor List (AUB: 1973-1975; University of Houston: 1976).

Phi Kappa Phi Honor Fraternity.

Exxon Teaching Fellowship, College of Engineering, The University of Texas, Austin, TX, (1983-84, 1984-85, 1985-86).

Certificate of Appreciation, Capital Metro Transit Authority, Austin, Texas, November 1984.

Bibliographical inclusion in the 13th Edition of Personalities of the South, (1985).

Banks McLaurin Fellowship in Engineering, College of Engineering, The University of Texas, Austin, TX, (1986-87, 1987-88, 1988-89, 1989-90).

Faculty Excellence Award, Engineering Foundation, University of Texas, Austin, TX, (1986).

Certificate of Appreciation Plaque, Capital Metro Transit Authority, Austin, Texas, (1986).

Appreciation of Service Plaque received as Chairman of Operations Subcommittee of CAC, Capital Metropolitan Transit Authority (1987).

Appointed founding chairman of the Transportation Supply Analysis Committee of the Transportation Research Board of the National Research Council of the National Academies of Engineering and Science, 1987-1993.

Best paper award by Traffic Flow Theory and Characteristics Committee of the Transportation Research Board, Joint Research Council of the National Academies of Engineering and Science, for paper titled "Effect of Traffic Mix, Volume, and Geometric on the Trip Time of Cars and Trucks on Urban Freeways," presented at the 1987 Annual Meeting of the Transportation Research Board.

Distinguished guest lectureship grant award, National Science Council, Taiwan, Republic of China, 1989.

Dissertation supervised winner of honorable mention in 1991 dissertation prize competition of the Transportation Science Section of the Operations Research Society of America ("Modeling Crowd Behaviour and Movement," by Saad Al Gadhi).

Faculty Excellence Award, College of Engineering, University of Texas at Austin, 1991.

Appointed Chairman of Committee on Traffic Flow Theory and Characteristics of the Transportation Research Board, National Research Council of the Academies of Engineering and Science, 1993.

Faculty Excellence Award, Graduate Engineering Council, University of Texas, Austin, TX, 1993.

Elected Vice-President/President Elect of the Transportation Science Section of the Operations Research Society of America, 1993; President 1994-1997.

Faculty-in-Residence Fellowship for Transportation Leadership Development, ENO Foundation, Washington, D. C., May 1993.

Appointed to Hayden Head Professorship in Civil Engineering, The University of Texas, Austin, TX, 1991-1996.

Elected to Executive Board of the International Association for Travel Behaviour Research, 1993-1998.

First Prize Award for 1994 Transportation Science Section of the Operations Research Society of America Dissertation Prize Competition, awarded to dissertation supervised: "System Optimal Dynamic Traffic Assignment in Congested Networks with Advanced Traveler Information Systems (ATIS) Capabilities," by Srinivas Peeta.

Honorable mention for 1994 Transportation Science Section of the Operations Research Society of America Dissertation Prize Competition, awarded to dissertation supervised: "Optimum Path Algorithms on

- Multidimensional Networks: Analysis, Design, Implementation and Computational Experience," by Athanasios Ziliaskopoulos.
- Testimonial of Appreciation for Distinguished Service, Transportation Research Board, National Research Council of the National Academies of Engineering and Sciences, 1994.
- Quoted in feature cover article in *New Scientist*, June 25, 1994 on Shock Waves in Traffic; story featured in syndication in several major newspapers, including *Dallas Morning News*.
- Appointed L. B. Meaders Centennial Professorship in Engineering, The University of Texas, Austin, TX, September 1996-August 2000.
- Elected Chair, International Steering Committee of the Eight Meeting of the International Association of Travel Behaviour Research. "Challenges and Opportunities in Travel Behaviour Research and Applications," Austin, Texas, September 21-25, 1997.
- Elected Co-Chair, International Steering Committee for the Triennial Symposium on Transportation Analysis (TRISTAN III), San Juan, Puerto Rico, June 17-23, 1998.
- Elected Vice-President/President Elect of the *International Association for Travel Behaviour Research*, 1997; President, 2000-2002.
- Certificate of Appreciation, International Conference on "Rehabilitation and Development of Civil Engineering Infrastructure Systems," American University of Beirut, Dept. of Civil and Environmental Engineering, Faculty of Engineering and Architecture, American University of Beirut, Lebanon, June 9-11, 1997.
- Charlie Wootan Best Dissertation in Transportation Award (Council of University Transportation Centers) for 1997 presented to dissertation supervised: "Optimal Routing in Time-Varying Stochastic Networks: Algorithms and Implementations," by Elise D. Miller-Hooks.
- First Robert Herman Outstanding Student Award presented to Dean Taylor, Ph.D. student supervised, at the SWUTC Executive Committee Meeting, Houston, TX, April 1998.
- Washington Post*, August 5, 1999; *Boston Globe*, August 7, 1999; *Austin American Statesman*, August 18, 1999; and the *International Herald Tribune* among other newspapers, referred to Dr. Mahmassani as "the leading American expert in traffic flow theory."
- Certificate of Appreciation for service as Chair of the Traffic Flow Theory and Characteristics Committee, *Transportation Research Board*, National Academies of Science and Engineering, 1999.
- Nominated for Outstanding Graduate Teacher, Ph.D. Level by Civil Engineering Department Awards Committee, September 1999.
- Appointed to Adnan Abou-Ayyash Centennial Professorship in Transportation Engineering, 2000-2002.
- Robert Herman Outstanding Student Award presented to Karthik Srinivasan, Ph.D. student under Dr. Mahmassani's supervision, by the SWUTC Executive Committee at the 79th Annual Transportation Research Board Meeting, Washington D.C., January 2000.
- Robert Herman Outstanding Student Award presented to Yi-Chang Chiu, Ph.D. student under Dr. Mahmassani's supervision, at the SWUTC Executive Committee Meeting, Austin, TX, Nov. 15, 2000.
- Selected to deliver the Mel Webber Distinguished Lecture "Drinking from a Fire Hose: Real-time Information and Transportation Decision Making," Seventh Annual UCTC Student Conference, University of California-Irvine, February 9-10, 2001.
- First Place in the 2000 Eric I. Pas Memorial Dissertation Prize Competition of the International Association for Travel Behaviour Research awarded to Kathik Srinivasan for his dissertation under H. Mahmassani's supervision, titled "Dynamic Decision and Adjustment Processes in Commuter Behavior Under Real-time Information", presented in January 2002.
- SWUTC Outstanding PHD Student Award presented to Pamela Murray, Ph.D. student under Dr. Mahmassani's supervision, 2002.

- Selected as Editor in Chief of *Transportation Science* by the Institute for Operations Research and the Management Sciences (INFORMS), October 2002; selected for second term 2006-2008.
- First holder of Charles Irish Sr. Chair in Civil and Environmental Engineering, University of Maryland, 2002-2007.
- Selected as General Chair for the INFORMS 2008 Meeting, Washington, DC. by the Meetings Committee and the Executive Board of the Institute for Operations Research and the Management Sciences; Nov. 2004.
- Frank Masters Award for contributions to Transportation Engineering research and education, by the American Society of Civil Engineers, 2004.
- INFORMS Transportation Science and Logistics Section Dissertation Prize (Hon. Mention) awarded to Miguel Figliozzi's Dissertation (supervised by HS Mahmassani and P Jaillet), November 2004.
- Distinguished Alumnus Award, Faculty of Engineering and Architecture, American University of Beirut, May 2006.
- Elected Emeritus Member of the Telecommunications-Travel Behavior Committee of the Transportation Research Board, National Academies of Engineering and the Sciences, September 2006.
- Appointed to William A. Patterson Distinguished Chair in Transportation, Northwestern University (previously occupied by the late Professor Marvin Manheim), September 2007.
- Elected Emeritus Member of the Network Modeling Committee of the Transportation Research Board, National Academies of Engineering and the Sciences, October 2007.
- Elected Emeritus Member of the Traveler Behavior and Values Committee of the Transportation Research Board, National Academies of Engineering and the Sciences, October 2008.
- Recognition Award for service as Editor-in-Chief of Transportation Science, INFORMS, October 2008.
- Certificate of appreciation for service as General Chair of INFORMS 2008 Annual Meeting in Washington, DC, October 2008.
- Invited by US Department of Defense (Secretary of the Army), Dept. of Homeland Security and Washington DC Chief of Police to brief planning and response teams on *crowd dynamics and management* in conjunction with President Obama's inauguration in January 2008.
- 2010 IEEE Outstanding Intelligent Transportation Systems Application Award, recognizing "pioneering contributions to development of dynamic network modeling software (DYNASMART) that has influenced application of dynamic assignment tools in cities across the US and the world", September 2010.
- First Greenshields Prize for best traffic flow theory paper at the 2011 Meeting of the Transportation Research Board, National Academies of Engineering and the Sciences; for "Correlated Parameters in Driving Behavior Models : Car-Following Example and Implications For Traffic Microsimulation" by Ji-Won Kim and Hani S. Mahmassani.
- First Best Paper Award for Network Modeling papers at the 2014 Meeting of the Transportation Research Board, National Academies of Engineering and the Sciences; for "How Many Runs? Analytical Method for Optimal Scenario Sampling to Estimate the Variance of Travel Time Distributions in Vehicular Traffic Networks" by Ji-Won Kim and Hani S. Mahmassani.
- Ryuichi Kitamura Prize for best paper jointly authored by a graduate student and mentor (Travel Analysis Methods Section) at the 2014 Meeting of the Transportation Research Board, National Academies of Engineering and the Sciences; for "How Many Runs? Analytical Method for Optimal Scenario Sampling to Estimate the Variance of Travel Time Distributions in Vehicular Traffic Networks" by Ji-Won Kim and Hani S. Mahmassani.
- Melvin Webber Memorial Lecture "Progress Report: Leveraging the Data Deluge Into System Intelligence," Annual UC_Connect Student Conference, University of California-Santa Barbara, February 29, 2015.

Thomas B. Deen Distinguished Lectureship, Transportation Research Board of the National Academies of Engineering and the Sciences, January 2016. The [lectureship](#) recognizes the career contributions and achievements of an individual in one of the areas covered by the Board's Technical Activities Division.

National Associate of the National Research Council of the National Academies of Sciences, Engineering and Medicine, June 2016; in recognition of "extraordinary dedication" in service to the National Academies.

MEDIA COVERAGE AND RECOGNITION

"Telecommuting's a turn off in Texas", by Diana Williams, AUSTIN AMERICAN-STATESMAN, September 20, 1992, Page H1. <http://docs.newsbank.com/g/GooglePM/AASB/lib00061,0EAD90392DB818B6.html>

"When shock waves hit traffic: What turns a fast-moving stream of cars into a stagnant pool of frustrated motorists?", by Bob Holmes, NEW SCIENTIST, 25 June 1994; cover story.

<http://www.newscientist.com/article.ns?id=mg14219314.400>

"Telecommuting research may explain employee choices", TELECOMMUTING REVIEW: THE GORDON REPORT, February 1, 1995. http://www.accessmylibrary.com/coms2/summary_0286-9367934_ITM

Television Interview with K-EYE, a local station, as part of their *Y2K Series: Transportation Issues and the Future of Transportation Technology*, April 16, 1999 evening news broadcasts.

"Lab Studying Science Behind Traffic Patterns", by Alan Sipress, WASHINGTON POST, August 5, 1999; Page A1. <http://www.washingtonpost.com/wp-srv/national/daily/aug99/traffic05.htm>

[Referred to Dr. Mahmassani as **"the leading American expert in traffic flow theory."** Story widely picked up in syndication, and published by many newspapers, including the BOSTON GLOBE and the INTERNATIONAL HERALD TRIBUNE]

"Go with the flow: Scientists tackle the mystery of ... the traffic jam", LAS VEGAS REVIEW-JOURNAL, August 08, 1999. http://www.reviewjournal.com/lvrj_home/1999/Aug-08-Sun-1999/opinion/11710159.html

"Cosmic gridlock", AUSTIN AMERICAN-STATESMAN, August 18, 1999, Page A12. <http://docs.newsbank.com/g/GooglePM/AASB/lib00061,0E9C239AE5D6CB70.html>

"Science of Figuring Out 'Mystery' Traffic Jams: Explanations abound for problem", by Michael Taylor, SAN FRANCISCO CHRONICLE, December 6, 1999; Page A17.

<http://www.sfgate.com/cgi-bin/article.cgi?f=c/a/1999/12/06/MN25453.DTL>

"Drivers Brave Traffic Tie-Ups To Travel Solo Lone commuters revel in isolation, quiet time", by Michael Taylor, SAN FRANCISCO CHRONICLE, June 19, 2000; Page A1.

<http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2000/06/19/MN67165.DTL>

"Gawk, no action: Experts can't block gapers", by Rogers Worthington, CHICAGO TRIBUNE, June 26, 2000.

http://www.ny.digitalcity.com/chicago/chicago_issues/main.adp?page=rubberneck

"UT-Austin professor helping develop next generation of smart highways", by Patrick Driscoll, SAN ANTONIO EXPRESS-NEWS, November 7, 2000, page 10B.

<http://docs.newsbank.com/g/GooglePM/SAEC/lib00210,0EAFE9840B394646.html>

"Lofty Lingo Boils Down To Dissection of Traffic: Computer model may unravel mysteries of congestion", by Carl T. Hall, SAN FRANCISCO CHRONICLE, January 8, 2001; Page A13.

<http://www.sfgate.com/cgi-bin/article.cgi?f=c/a/2001/01/08/MN168185.DTL>

"The reason you're stuck in traffic: There isn't one", by Kelly Daniel, AUSTIN AMERICAN-STATESMAN, March 26, 2001; Page B1. <http://docs.newsbank.com/g/GooglePM/AASB/lib00060,0EB440CC916ABFD1.html>

"Doppelgänger auf der Flucht", DER SPIEGEL, April 25, 2001.

http://www.spolwig.de/sp-hu/spolwig/hsem_03/dokumente/plan_umlang/entwurf1.htm

"Models shape the flow of traffic thoughts: Researchers are using technology to reduce traffic congestion", by Mark Chediak, RED HERRING, January 14, 2002. <http://www.redherring.com/Home/6544>

"TRAFFIC STOP, GO: At about 2,000 cars per hour, per lane, flow gets gummed up", by Gabriella Boston, THE WASHINGTON TIMES, January 16, 2003; Page B01.

<http://docs.newsbank.com/g/GooglePM/WT/lib00178,0F8B5BA286B85A0D.html>

- “Removing clots from the arteries of our cities”, by Stephen Phillips, THE (LONDON) TIMES Higher Education Supplement, 07 March 2003.
http://www.thes.co.uk/search/story.aspx?story_id=90522&state_value=Archive
- “Lasst sie laufen!“, by Von Thomas Röbbke, DIE ZEIT, March 2003.
http://www.zeit.de/2003/03/C-Fu_a7g_8angerforscher?page=all
- “Anatomy of a Traffic Jam”, DISCOVERY TIMES CHANNEL (Interactive display), originally published April 2003. <http://times.discovery.com/convergence/drivingamerica/interactive/interactive.html>
[Display linked as part of Multimedia feature in THE NEW YORK TIMES titled Nowhere, Fast!
http://www.nytimes.com/ref/multimedia/dtimes_TRAFFIC.html]
- “New Technologies Hold Promise for Faster and Easier Transportation Systems”, by Paul Adams, ENGINEERING@MARYLAND, Spring 2003. http://www.eng.umd.edu/media/e-at-m/03_e@m_spring.pdf
- “Readers Take a Stab At Tips for Traffic -- Many Are Illusions”, by Sharon Begley, THE WALL STREET JOURNAL, October 24, 2003. <http://online.wsj.com/article/SB106694024016638300.html>
- “Double-Parkers Blamed for Tie-Ups: Lax Enforcement Allows Gridlock to Ripple Outward, Commuters Say”, by Katherine Shaver, WASHINGTON POST, November 23, 2003; Page C01
<http://www.morethanthis.net/blog/archives/2003/11/24/000618.html>
- “Fiery crash chars bridge, snarls roads: Travelers, commuters stew for hours in backups”, by Stephen Kiehl and Scott Shane, THE BALTIMORE SUN, January 14, 2004
www.baltimoresun.com/news/traffic/bal-te.md.road14jan14,0,3397604.story?coll=bal-traffic-headlines
- “Seeking to unravel mysteries like traffic jams and tailgating”, by Richard A. Lovett, SACRAMENTO BEE, June 6, 2004; page E6. <http://docs.newsbank.com/g/GooglePM/SB/lib00166,1030FB5AA2CD7113.html>
- “A Few Cars Controlled By Computer Can Keep Rest of Traffic Flowing”, by SHARON BEGLEY, THE WALL STREET JOURNAL, July 30, 2004.
http://online.wsj.com/public/article_print/SB109113657130578167.html
- “Study sees ICC as boon to area”, by Michael Dresser, THE BALTIMORE SUN, September 17, 2004.
<http://www.baltimoresun.com/news/local/bal-icc091704,0,5578311.story?coll=bal-local-headlines>
- “Benefit of Md. Connector Cited: Study Predicts Economic Boost in Montgomery, Prince George's”, by Steven Ginsberg, WASHINGTON POST, September 17, 2004; Page B04.
<http://www.washingtonpost.com/wp-dyn/articles/A27235-2004Sep16.html>
- “Winter luncheon speaker highlights new paradigms in transportation”, Center for Transportation Studies Report, University of Minnesota, March 2005.
<http://www.cts.umn.edu/Publications/CTSReport/2005/03/WinterLuncheon.html>
- “Big Plans With Growing Price Tags Connector, Dulles Rail Remain Top Priorities Despite Cost Questions”, by Steven Ginsberg, WASHINGTON POST, July 17, 2005; Page C01.
<http://www.washingtonpost.com/wp-dyn/content/article/2005/07/16/AR2005071601163.html>
- “Balto. geography has edge over Houston's Despite extra options, backups leaving city would be inevitable, experts say”, by Michael Dresser, THE BALTIMORE SUN, September 15, 2005.
<http://pqasb.pqarchiver.com/baltsun/access/902600631.html?dids=902600631:902600631&FMT=FT>
- “Modeling, Simulations Can Help a City Offer More Efficient Exodus”, by Sharon Begley, THE WALL STREET JOURNAL, Science Journal, Sep. 30, 2005. <http://online.wsj.com/article/SB112803891312456243.html>
- “A Slowdown in the Fast Lanes: Local Traffic Clogs Md., Va. Interstates Far From D.C.” by Steven Ginsberg, WASHINGTON POST, October 6, 2005; Page A01.
http://www.washingtonpost.com/wp-dyn/content/article/2005/10/05/AR2005100502237_2.html
- “Baltimore's top officials oppose sale of major port operator to UAE based company”, by James Mosher, THE (BALTIMORE) DAILY RECORD, February 24, 2006.
http://findarticles.com/p/articles/mi_qn4183/is_20060224/ai_n16182035
- “Thinking Inside the Box: Security experts are getting serious about cargo containers as a key protection against terrorists”, by Michael Hill, THE BALTIMORE SUN, March 26, 2006.
<http://pqasb.pqarchiver.com/baltsun/access/1010584791.html?dids=1010584791:1010584791&FMT=FT>
- “Stockholm's Syndrome: Hostages to Traffic, Swedes Will Vote on High-Tech Plan To Untangle Snarls With Tolls”, by Leila Abboud and Jenny Clevstrom, THE WALL STREET JOURNAL, August 26, 2006.
<http://online.wsj.com/article/SB115681726625048040.html>

- [Story also picked up in syndication by several newspapers, including the PITTSBURGH POST GAZETTE <http://www.post-gazette.com/pg/06241/717204-96.stm>]
- "Md. to consider alternative to new Bay Bridge", by Dori Berman, THE (BALTIMORE) DAILY RECORD. Sep 7, 2006. http://findarticles.com/p/articles/mi_qn4183/is_20060907/ai_n16724753
- "Why Do They Call It Rush Hour If Nothing Moves?" SCIENCE & THE CITY, New York Academy of Sciences, Sep. 9, 2006. www.nyas.org/snc/calendarDetail.asp?eventID=7607&date=9/9/2006%20:30:00%20PM
- "Modern Traffic Theory, Behavior, and Imagination: A Roundtable", Philoctetes Center for the Study of the Imagination, New York City, September 9, 2006; video and soundtrack available at: http://www.philoctetes.org/Past_Programs/Modern_Traffic_Theory_Behavior_and_Imagination
- "Traffic will be free to run on the information highway", by Michael Schrage, FINANCIAL TIMES, September 26, 2006. http://www.ft.com/cms/s/0/e2f0432a-4844-11db-a42e-0000779e2340.html?nclick_check=1
- "Commuters give weeks to the ride", by Matthew Santoni, THE EXAMINER (BALTIMORE), March 22, 2007. http://www.examiner.com/a-632566~Commuters_give_weeks_to_the_ride.html
- "Formula for Panic: Crowd-motion findings may prevent stampedes", by Davide Castelvecchi, SCIENCE NEWS ONLINE, April 7, 2007; Vol. 171, No. 14. <http://www.sciencenews.org/articles/20070407/fob5.asp>
- "Bumper to Bumper: Predicting Traffic Flow", by Eric Weiner, NPR.ORG, August 7, 2007. <http://www.npr.org/templates/story/story.php?storyId=12565413>
- "U.S. Security Market: Changing Dynamics", by Matt Scherer, SECURITY WORLD MAGAZINE INTERNATIONAL, September 3, 2007. http://www.securityworldmag.com/market/market_view.asp?idx=574&part_code=05#
- "Marylanders endure commutes longer than all except N.Y.", by Matthew Santoni, THE EXAMINER (BALTIMORE), September 13, 2007. www.examiner.com/a-932150~Marylanders_endure_commutes%20_longer_than_all_except_N_Y_.html
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MEMBERSHIP IN PROFESSIONAL AND HONORARY SOCIETIES:

International

International Institute of Forecasters, 1983-1988

International Association for Travel Behaviour Research, 1988-Present; President, 2000-2002

Institute for Operations Research and the Management Sciences (INFORMS); also affiliated with the Transportation Science and Logistics Society (Past President), Decision Analysis and Artificial Intelligence Special Interest Groups, 1994-Present

The Institute of Management Sciences, 1993-1994 (federated into INFORMS, 1994)

Regional Science Association, 1982-2000

World Conference Transport Research Society (WCTRS), member of Transportation Telecommunications Interactions Special Interest Group of WCTRS, 1988-Present

Non-linear Socio-Spatial Dynamics Society, 1993-1998

Association for European Transport, 1998-2002

Institute for Electrical and Electronic Engineers (IEEE) 2000 – Present; also affiliated with IEEE Computer Society since 1997 and IEEE Intelligent Transportation Systems Society since inception.

Transportation Research Forum, since 2008.

National

Transportation Research Board, 1977-Present

Institute of Transportation Engineers, 1977-Present

Operations Research Society of America; also affiliated with the Transportation Science, Decision Analysis, and Artificial Intelligence special interest sections, 1980-1994 (federated into INFORMS, 1994).

American Society of Civil Engineers, 1983-Present

Society of Industrial and Applied Mathematics, 1987-2000

Intelligent Transportation Systems Society of America (formerly Intelligent Vehicle Highway Society of America), Founding Member, 1991-Present

Women Transportation Seminar National Society, 1997-Present

UNIVERSITY COMMITTEE ASSIGNMENTS:

Department

<i>UT-AUSTIN</i>	Member, Ad Hoc Committee for Nomination of Best Teaching Assistant	Spring 1983
	Member, Ad Hoc Committee for Proposal Preparation Committee of Proposal For National Science Foundation Center for Engineering Research Center on Infrastructure	Summer & Fall 1984
	Member, Ad Hoc Committee To Recommend Criteria for Awarding Special Transportation Engineering Fellowship	1984
	Member, Library Acquisitions Committee	1984-1987

Member, Curriculum Committee Addressing Course Offerings in Analytical Methods	Spring 1985
Member, Long Range Planning Committee	Spring 1985
Member, Computer-Aided Design, Interactive Graphics and Artificial Intelligence (CAD/IG/AI) Committee	1986-1989
Chair, Subcommittee on Research Opportunities in Computer-Aided Design, Interactive Graphics and Artificial Intelligence	1986
Faculty Advisor, Institute of Transportation Engineers (ITE) Student Chapter	1986-1998
Member, Faculty Recruiting Priorities Committee	Spring 1988
Member, Departmental Goals, Objectives, & Implementation Committee	1988-1990
Member, Awards and Endowed Positions Committee	1988-1989
Member, Curriculum Committee	1989-1991
Chair, Task Group on Curriculum Revision, Curriculum Committee	1989-1990
Member, Faculty Recruiting Committee	1989-1990
Member, Graduate Brochure Revision Committee	1990-1991
Member, Committee for Preparation and Review of College Thrust Area Proposals	1993-1996
Graduate Recruiting Coordinator, Transportation Group	1988-1999
Member, Graduate Recruiting and Fellowship Committee	1988-1997
Member, Computer Resources Committee	2001-2002 1994-1998
Member, Faculty Performance Evaluation Committee	1995-1998
Faculty Advisor, Intelligent Transportation Society of America (ITSA) Student Chapter	1996-2002
Member, Core Course Curriculum Committee	1997-1999
Member, Departmental Advisory Committee and Transportation Area Coordinator	1998-2002
Member, Computer Use & Policies	1998-2000
Member, Graduate Recruiting Committee	2001- 2002
<i>UNIV OF MARYLAND</i> Member, Department Promotion and Tenure Committee	2002- 2007
Member, Executive Advisory Committee	2002- 2005
Member, Clark Chair and Faculty Search Committee	2004- 2005
Member, Graduate Recruiting Committee	2005- 2007

College/School

<i>UT-AUSTIN</i>	Member, Mathematics (Undergraduate) Committee	1986-87
	Member, Engineering Scholastic Appeals Committee	1987-88
	Member, Executive Advisory Committee for the Center for Transportation Research (CTR)	1988-1996
	Chair, Task Group on Private Sector Support for the Center for Transportation Research	Summer 1988
	Member, College Graduate Recruiting Committee	1989-1991
	Member, Operations Committee of the Transportation Research Center (CTR) responsible for Areas I and A	1989-2000
	Member, Ex Officio, Executive Committee of the Southwest University Transportation Center Consortium with Texas A & M University and Texas Southern University	1991-2002
	Chairman, Steering Committee for the Advanced Institute for Transportation Infrastructure Engineering and Management	1991
	Member, Committee to select Outstanding Student of the Year for Region 6 University Transportation Center (with Texas A & M and Texas Southern University)	1993-1994 1996 (Chair)
	Member, Steering Committee, Center for Control and Systems Research	1993-2000
	Member, Steering Committee for College Center of Excellence in Advanced Mobility/Transportation Systems	1994-1998
	Member, Consultative Committee to Recommend New CE Department Chairman	1996
	Member, Ad Hoc Committee on EM 306S	1998-1999
	<i>UNIV OF MARYLAND</i>	Member, CEE Department Chair Search Committee
Member, College Advisory Committee		2002-2006
Member, Kim Building Working Group		2003-2006
Member, Engineering Graduate Student Retention Committee		2005
Member, Engineering Strategic Planning Committee		2007
<i>NORTHWESTERN</i>	Member, Energy and Sustainability Initiative Working Group	2007-2008
	Member, CEE Department Chair Search Committee	2008-2009
	Working Group, Future of Movement institute	2009-2010
	Promotion and Tenure Committee	2010-2012
	Cohen Chair Selection Committee	2017

University

<i>UT-AUSTIN</i>	Member, University Shuttle Bus Committee	1988-1990
	Member, Memorial Resolution Committee honoring the late Professor Emeritus Robert Herman	1997-2000

	Member, Advisory Board for Planning Forum, a student-edited journal in the Community and Regional Planning Program in the School of Architecture, University of Texas, Austin, Texas	1997-2002
<i>UNIV OF MARYLAND</i>	Member, Campus Transportation Planning Committee	2003-2007
<i>NORTHWESTERN</i>	Advisory Board, Northwestern Institute on Sustainable Practices	2008-present
	Member, Review Committee of Institute for Bio-Nanotechnology in Medicine (IBNAM)	2009
	Sustainable Practices Committee (Campus-wide)	2016-current

PROFESSIONAL SOCIETY AND MAJOR GOVERNMENTAL COMMITTEES:

INTERNATIONAL

	Member, Transportation Telecommunications Special Interest Group of World Conference Transport Research Society.	1988
	Member, Steering and Scientific Committees for the 6th International Conference of the International Association of Travel Behaviour, Quebec, Canada.	1988-1991
	Member, Steering Committee for the 7 th International Conference of the International Association of Travel Behavior, Santiago, Chile	1991-1994
	Member, International Association for Travel Behaviour Research, President/President-Elect of the Executive Board, 1997-1998, Chairman (Founding), Dissertation Prize Committee, 1999, President, 2000.	1991-Present
	Member, Scientific Committee of the Second Capri Conference on Urban Traffic Networks: Dynamic Control and Flow Equilibrium, Capri, Italy	1991-1992
	Member (IAC) International Advisory Committee for the International Symposium on Transportation and Traffic Theory (ISTTT).	1993-Present
	Member, Scientific Programme Committee, World Conference on Transportation Research Society. 7 th World Conference, Sydney, Australia (July 1995); 8 th World Conference, Antwerpen, Belgium (July 1998); 9 th World Conference, Seoul, Korea (July, 2001); and 10 th World Conference, Istanbul, Turkey (July, 2004).	1993-2004
	Member, International Advisory Committee, National Science Foundation, Center for Infrastructure Research, University of Puerto Rico, Mayaguez.	1993-2000
	Member, Urban Transportation Planning Models Program Committee, Association for European Transport, formerly PTRC (PTRC), United Kingdom.	1993-1999
	Conference Chairman and Organizer, 8th Meeting of the International Association of Travel Behaviour Research, "Challenges and Opportunities in Travel Behavior Research and Applications," Austin, Texas, Sept. 1997.	1994-1998
	Conference Co-Chairman and Organizer, Program Committee, Third Triennial Symposium on Transportation Analysis (TRISTAN III), San Juan, Puerto Rico (July, 1998).	1994 -1998

Member, Advisory Panel, International Conference on Advanced Technologies in Transportation and Traffic Management, Center for Transportation Studies, Nanyang Technological University, Singapore, Japan.	1994-1996
President, Council of the Transportation Science Section, Institute for Operations Research & the Management Sciences.	1994-1997
Member, Scientific Committee, Repair and Rehabilitation of Civil Engineering Infrastructure Systems Conference, American University of Beirut, Beirut, Lebanon.	1996-1997
Member, Scientific Programme Committee, World Conference on Transport Research Society.	1996-1998
Member, Career Panel on Orphan Proposals, National Science Association International, Arlington, VA.	1996
Chairman, Robert Herman Lifetime Achievement Award Committee of the Transportation Science Section of INFORMS.	1996-1997
Chairman, Transportation Science Cluster, INFORMS, Institute of Operations Research and the Management Sciences Atlanta Fall 1996 Conference, Atlanta, GA.	1996
President, Transportation Science Section of the Institute for Operations Research and the Management Sciences (INFORMS) Lifetime Achievement Award Committee.	1996-2000
Member, International Scientific Committee (IPC) of the 8th International Federation of Automatic Control (IFAC) Symposium on Transportation Systems, Technical University of Crete, Chania, Greece,	1996-1997
Member, Review Panel for ITS-ATMS Plan Development and Deployment Workshop, San Juan, Puerto Rico.	1997
Member, Review Panel of Master Plan for Elyssar Southern Suburb Redevelopment Authority, Beirut, Lebanon.	1997
Member, International Advisory Board, International Conference on Transportation Into the Next Millennium, Singapore.	1997-1998
Member, Scientific Committee, 1998 International Conference on Traffic and Transportation Studies (ICCTTS '98) Beijing, China.	1997-1998
Member, Awards Committee and International Scientific Committee, 8th World Conference on Transport Research, Antwerpen, Belgium.	1997-1998
Member, Urban Transportation Planning Methods Programme Committee, Association for European Transport, formally PTRC (PTRC), United Kingdom.	1997-2000
Member, Scientific Committee, International Program Committee of the 9 th IFAC (Institut für Regelungs- und Automatisierungstechnik) Symposium Control in Transportation Systems 2000, Braunschweig, Germany.	1998-2000
Member, External International Advisory Review Committee for INRETS (Institut National de Recherche Sur les Transports et leur Sécurité), French Research Institute, Lyon, France.	1998-2000

Chair, First Eric Pas Dissertation Award Committee, International Association for Travel Behaviour Research (IATBR)	1999-2000
Member, Methodological Innovations Programme Committee, European Transport Conference, London, UK	1999-2000
Member, International Scientific Program Committee, European Working Group on Transportation (EURO), Jubilee 2000 Conference, "Improving Knowledge and Tools for a Transportation and Logistics Development," Rome, Italy, 2000.	1999-2000
Member, Committee on Subdivisions, Institute for Operations Research and the Management Sciences (INFORMS).	1999-2004
External Advisory Board Member, Faculty of Engineering and Architecture, Department of Civil and Environmental Engineering, American University of Beirut, Lebanon	2000-Present
Advisory Committee Member, Transit Corridor Feasibility Study, Ministry of Transport, Beirut, Lebanon	2000-2002
Member, International Steering Committee, TRISTAN IV: Triennial International Symposium on Transportation Analysis, Azores, Portugal, July 2001	1999-2001
Member, International Steering Committee, 9 th International Association for Travel Behaviour Research (IATBR), 2000 Conference, Gold Coast, Queensland, Australia.	1998- 2000
Member, Program Committee, The Institute for Electrical and Electronic Engineers (IEEE) 4 th International Conference on Intelligent Transportation Systems, Oakland, California	2000-2001
Member, International Steering Committee, 10th International Association for Travel Behaviour Research (IATBR), 2003 Conference, Lucerne, Switzerland.	2000-2003
Chair, First Lifetime Achievement Award Committee, International Association for Travel Behaviour Research (IATBR)	2001-2003
Member, Scientific Program Committee, Workshop On Traffic Modeling: Trends And Challenges; Barcelona, Spain, 2003; Sedona, AZ, 2005;	2002-2005
Conference Chairman and Organizer, 16th International Symposium on Traffic and Transportation Theory, Maryland 2005	2002-2005
Member (ex-officio), Publications Committee, INFORMS	2002-2008
Member, Scientific Committee, XIII Pan-American Congress of Transportation (PANAM XIII), Albany, New York, September 2004.	2003-2004
External program and performance evaluator for the Laboratoire d'ingenierie Circulation- Transports(LICIT), Unite mixte de recherche ENTPE-INRETS (Premier French laboratory for traffic and transportation), Lyon, France, October 2004.	2004
Member, Scientific Program Committee, Odysseus 2006 Third International Workshop on Freight Transportation and Logistics. May 2006, Altea, Spain.	2005-2006
Odysseus 2009 Fourth International Workshop, Turkey	2006-2009

General Conference Chair, INFORMS 2008 Annual Meeting, Washington, DC., November 2008.	2005-2008
Member, Scientific Committee, TRISTAN VI: Triennial International Symposium on Transportation Analysis, Phuket Island, Thailand, July 2007	2005-2007
Member, Scientific Committee, First International Symposium on Dynamic Traffic Assignment, Leeds, UK, June 2006	2006
Scientific Committee, The third International Symposium on Transportation Network Reliability, INSTR 2007, Delft, NL.	2006-2007
International Member, Scientific Committee, International Congress on Transportation Research in Greece, Thessaloniki,	2006-2007
Member, Scientific Committee, IWDL 06: International Workshop on Distribution and Logistics, Brescia, Italy, October 2007	2005-2006
Member, Technical Committee, ITS Middle East Conference, Dubai, UAE, December 2006	2006-2007
Member, Scientific Committee, City Logistics Expo, Padua, Italy, April 2007	2006-2007
Member, Eric Pas Dissertation Prize Committee, International Association of Travel Behavior Research, 2007	2007
Member, Scientific Committee, International Workshop on Traffic data Collection & its Standardization, Barcelona, September 2008	2007-2008
Member, Steering Committee, International Symposium on Traffic Simulation	2007-present
Member, International Scientific Committee, MTTBR 08, Indo-US Symposium on Advances in Mass Transit and Travel Behavior Research	2007-2008
Scientific Committee, International Conference on Models and Technologies for Intelligent Transportation Systems, June 2009, Rome, Italy	2008-2009
Scientific Committee First International Conference on Evacuation Modeling (ICEM 2009), Scheveningen, Netherlands, September 2009	2008-2009
Scientific Committee, IEEE Conference on Intelligent Transportation Systems and Controls (ITSC 2010), Madeira, Portugal, September 2010	2009-2010
International Advisory Committee, TRB-INRETS joint conference on <i>Does Traffic Data Support Traffic Models?</i> Annecy, France, July 2010	2009-2010
Chair and Organizer, Second International Conference on Evacuation Modeling, Evanston, Illinois, August 2012	2009-2012
Chair and Organizer, Strategic Research Priorities Workshop, Center of Research Excellence in Transport and Crowds, Hajj Research Institute, Umm al Qura University, Saudi Arabia, May 2010	2010

Member, International Advisory Board, Transport Platform, KTH-Sweden, Royal Institute of Technology, Stockholm, Sweden	2010-present
International Scientific Committee, 3 rd and 4 th International Time Use Observatory Workshop, Chile.	2011-present
Scientific Committee, <i>The fifth International Symposium on Transportation Network Reliability</i> , INSTR 2012, Hong Kong.	2011-2012
International Scientific Committee, <i>Conference on Traffic and Granular Flow 2013</i> , TGF'13, Jülich, Germany.	2012-2013
Scientific Advisory Committee, <i>4th International Symposium of Transport Simulation - ISTS'14</i> , Corsica, France.	2012-2014
International Program Committee, <i>The 11th International Congress on Advances in Civil Engineering</i> , October 2014, Istanbul, Turkey.	2012-2014
International Scientific Committee, <i>Conference on Pedestrian and Evacuation Dynamics '14 (PED 2014)</i> , Den Haag, Netherlands.	2012-2014
Scientific Advisory Board Member, Transportation and Crowd Management Center of Research Excellence (TCM CORE), Umm-al-Qura University, Makkah, Saudi Arabia	2012-Present
Member, Scientific Committee, <i>Odysseus 2015 Sixth International Workshop on Freight Transportation and Logistics</i> . June 2015, Ajaccio, Corsica, France.	2013-2015
Member, Scientific Committee, <i>4th International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS 2015)</i> . June 2015, Budapest, Hungary.	2014-2015
Scientific Committee, <i>The 6th International Symposium on Transportation Network Reliability</i> , INSTR 2015, Kyoto, Japan.	2014-2015
External program reviewer for the Laboratoire d'ingenierie Circulation-Transports (LICIT), Unite mixte de recherche ENTPE-IFSTTAR, Lyon, France, October 2014..	2014
Organizing Committee, <i>Workshop II: Traffic Estimation New Directions in Mathematical Approaches for Traffic Flow Management</i> , NSF Institute for Pure and Applied Mathematics, UCLA. October 2015, Los Angeles, CA.	2014-2015
Member, Scientific Committee, TRISTAN IX: Triennial International Symposium on Transportation Analysis, Oranjestad, Aruba, June 2016	2014-2016
Member, Scientific Committee, EWGT (EURO Working Group on Transportation Meeting) conference, Budapest in 2017.	2016-2017
Member, Scientific Committee, First INFORMS Transportation Science and Logistics Society Conference, July, 2017.	2016-2017
Founding Member, Board of Directors, Zephyr Foundation (dedicated to advancement of research and practice in Transportation Modeling and Planning).	2017-present
Member, Scientific Committee, EWGT (EURO Working Group on Transportation Meeting) conference, Braunschweig in 2017.	2017-2018

Editorships	Publications Committee (Editorial Board), <i>American Society of Civil Engineers (ASCE) Journal of Transportation Engineering</i> .	1983-1997
	Bibliographic Section Editor and Associate Editor, <i>Transportation Science</i> .	1985-2002
	Editorial Advisory Board, <i>Transportation Research</i> .	1987-2003
	Editor, Newsletter of the <i>Transportation Science Section of the Operations Research Society of America</i> .	1988-1999
	Editor of <i>Transportation Research Record</i> issues sponsored by Transportation Supply Analysis Committee of the Transportation Demands Board of the Joint Research Council of the National Academy of Engineering and Science.	1988-1996
	Editor of <i>Transportation Research Record</i> issues sponsored by Traffic Flow Theory and Characteristics Committee of the Transportation Research Board of the Joint Research Council of the National Academies of Engineering and Science.	1989-2003
	Editorial Board, <i>International Association for Travel Behaviour Research Publications</i> .	1990-1998
	Editorial Board, <i>Scientia Iranica</i> .	1993-Present
	Associate Editor (Founding), <i>Transportation Research Part C: Emerging Technologies</i> .	1993-2015
	Guest Editor, <i>Microcomputers in Civil Engineering: Intelligent Transportation Systems</i> .	1995-2000
	Editorial Board, <i>Recherche Transport Sécurité</i> (R.T.S.), French Journal published by Elsevier.	1998-Present
	Guest Editor, Focus Issue of <i>Transportation Science: Intelligent Transportation Systems</i> .	1998-2001
	Guest Editor, Special Issue of <i>Transportation: Time Use and Activity Analysis</i> .	1998
	Guest Editor, Special Issue of <i>Transportation Research A: Policy Applications of Travel Behaviour Models</i> .	1998
	Guest Editor, Special Issue of <i>Transportation Research B: Methodological Development in Travel Behaviour Research</i> .	1998
	Guest Editor, Special Issue of <i>Transportation Research Part C: Traveler Behaviour and Intelligent Transportation Systems</i> .	1998
	Guest Editor, Special Issue of <i>Transportation: Travel Behaviour Research</i> .	1998
	Associate Editor (Founding), <i>Institute of Electrical and Electronic Engineers (IEEE): Transactions on Intelligent Trans. Systems</i> .	1999-2012
	Senior Editor, <i>Institute of Electrical and Electronic Engineers (IEEE): Transactions on Intelligent Trans. Systems</i> .	2015-Present
	Editor-in-Chief, <i>Transportation Science</i> , an INFORMS Journal	2002-2008
	Associate Editor and Past Editor-in-Chief, <i>Transportation Science</i> , an INFORMS Journal	2009-Present

	Editorial Board, <i>Transportation Letters: The International Journal of Transportation Research</i> , J. Ross Publishing	2007-Present
	International Editorial Board, <i>Transport Policy: The official journal of the World Conference on Transport Research Society (WCTRS)</i> , Elsevier	2007-Present
	Editorial Board, <i>International Journal of Intelligent Transportation Systems Research: The Official Journal of ITS Japan</i> , Springer	2007-Present
	International Advisory Board, <i>Transportmetrica B: Transport Dynamics</i> , Taylor and Francis	2012-Present
	International Editorial Board, <i>EURO Journal on Transportation and Logistics</i> , Springer	2012-Present
NATIONAL		
	Member, Committee on Ethics and Professional Practices, Operations Research Society of America.	1983-1989
	Member, Technical Committee 4M-18 "Driver Information Processing," Institute of Transportation Engineers.	1983-1985
	Publications Committee (Editorial Board) of the Urban Transportation Division of the American Society of Civil Engineers, Control Group Member since 1985.	1983-1995
	Member, Urban Transportation Safety Committee of the Urban Transportation Division of the American Society of Civil Engineers.	1983-1997
	Member, Technical Committee 6A-36 "Impact of Transportation System Capacity Constraints on Hourly Travel Distribution," Institute of Transportation Engineers."	1983-1985
	Member, Passenger Travel Demand Forecasting Committee (A1C02), Transportation Research Board, National Research Council.	1983-1995
	Member and Past Chairman, Traffic Flow Theory and Characteristics Committee (A3A11), Transportation Research Board, National Research Council, (Member since 1984; Paper Review Chairman, 1989-1999; Committee Chairman, 1993-1999; Editor of <i>Transportation Research Record</i> sponsored by A3A11 (since 1989); Paper Review Committee (since January 2000).	1984-Present
	Member, Transportation Supply Analysis Task Force (A1C51), Transportation Research Board, National Research Council.	1984-1988
	Member, Executive Council of the Transportation Science Section, Operations Research Society of America.	1984-1988
	Member, Task Force to review awards offered by The Transportation Science Selection Committee of the Operations Research Society of America.	1984-1999
	Member, Technical Council 2-32, "Attracting Students into the Transportation Engineering Profession," Institute of Transportation Engineers (ITE).	1985-1990

Member, Traveler Behaviour and Values Committee (A1C04) Group 1, Section C since 1985; Elected Emeritus Member 2008; Member Subcommittee on Consumer Perspectives, 1985-1990; Member, Subcommittee on Telecommunications-Transportation Interactions of Committee A1C04 (3), 1988-1993; Transportation Research Board, National Research Council.	1985-Present
Member, Hazardous Materials Transportation Committee, Urban Transportation Division, ASCE.	1987-1997
Secretary-Treasurer, Operations Research Society of America, Council of the Transportation Science Section.	1988-1992
Member and former (Founding) Chairman, Transportation Network Modeling (formerly Transportation Supply Analysis) Committee of the Transportation Research Board, National Research Council for the National Academies of Science and Engineering, Section C, A1C05, and editor of <i>Transportation Research Record</i> (journal issue sponsored by committee). Elected Emeritus Member 2009.	1988-Present
Member, Dissertation Prize Committee, Transportation Science Section of the Operations Research Society of America, (Chairman, 1993-1994 and 1998-2000).	1988-2000
Member, Lifetime Achievement Award Selection Committee, Transportation Science Section of the Operations Research Society of America; Chairman 1994-1996.	1990-1996
Member, Committee for the American Society of Civil Engineers International (ASCE) Conference on Applications of Advanced Technologies in Transportation Engineering.	1990-1991
Member, Nominations Committee, Transportation Science Section of the Operations Research Society of America.	1990-1996
Member, Expert Systems (subsequently Artificial Intelligence Applications) Committee (A5008) of the Transportation Research Board, National Research Council.	1990-1996
Vice-President/President-Elect, Council of the Transportation Science Section, Operations Research Society of America.	1990-1996
Member, Benefits, Evaluation and Costs Committee, Intelligent Transportation Systems Society of America.	1991-1996
Member, Advanced Transportation Management Systems Committee, (ATMS) Intelligent Transportation Systems Society of America.	1991-Present
Member, Emerging Energy Technologies Committee, Energy Division, American Society of Civil Engineers.	1991-1996
Member, Database Committee, American Society of Civil Engineers.	1991-1996
Chairman, Analytical Tools Subcommittee of the Benefits, Evaluation, and Cost Committee, Intelligent Transportation Systems America Society.	1993-1997
Member, Intelligent Transportation Systems (ITS) Committee (A5009) of the Transportation Research Board, National Research Council of the National Academies of Science and Engineering and ITS American Intermodal Task Force (ITF).	1993-2000

Member, Steering Committee for Conference on Travel Survey Methods, Transportation Research Board, National Research Council.	1993-2000
Member, Committee on Telecommunications and Travel Behaviour (A1C08), Transportation Research Board, National Research Council for the National Academies of Science and Engineering; elected Emeritus Member 2007.	1993-Present
Member, Task Force on Transportation Modeling Research Needs (A1C03), Transportation Research Board, National Research Council.	1994-1998
Member, Evaluation Panel for Transportation Career Proposals, National Science Foundation Transportation Career Panel.	1994-1998
Member, Advanced Traveler Information Systems Committee, Intelligent Transportation Systems (ITS) America Society.	1994-1997
Chairman and Organizer, In Honor and Celebration of the Science of the late Dr. Robert Herman: A Technical Symposium, The University of Texas, Austin, TX.	1997
Member, Transportation Research Board Freeway Operations Committee, Paper Review Subcommittee.	1998-Present
Member, Board of Advisors of the Institute of Transportation Studies, University of California Davis, CA.	1999-Present
Member, Intelligent Transportation Society (ITS) America Coordinating Council.	2000-2002
Member, Education Committee, Intelligent Transportation Systems America Society	2000-2002
Member, Steering Council of Education and Research Forum, ITS America Society	2002-Present
Member, ASCE Transportation Security Committee	2002-Present
Member of Committee on Bureau of Transportation Statistics International Trade Traffic (National Institute of Statistics and National Academy of Science)	2003-2005
Member of NCHRP Project 07-15 Panel, "Cost Effective Measures and Planning Procedures for Travel Time, Delay, and Reliability"	2003-2007
Member, Technical Organizing Committee, Intelligent Transportation Systems Safety and Security Conference, Miami Beach, FL., March 2004	2003-2004
Panel Member for 15-year Review of the Institute of Transportation Studies (ITS) for the University of California System, Fall 2004.	2004
Member, Committee on Innovations in Travel Demand Modeling Conference (Transportation Research Board, National Academies of Engineering and Science)	2005-2006
TRB Task Force on Emergency Evacuation Expert Panel Member, White House Area Transportation Study (FHWA)	2006-2009
Expert Task Group Member, Strategic Highway Research Program 2, C05 "Contributions of Operations, Technology and Design to Meeting Highway Capacity Needs"	2006-2007

Expert Task Group Member, Strategic Highway Research Program 2, L02 "Establishing Monitoring Programs for Travel Time Reliability and Mobility"	2007-2008
Member, Advisory Board of the US DOT-funded Sustainable Transportation Center, University of California Davis, CA.	2008-2012
Member, US DOT Multimodal Decision Support System Stakeholder Group.	2010-Present
Co-Chair, Transportation Operations and Safety Scientific Theme, <i>1st T&D Congress Steering Committee</i> , American Society of Civil Engineers, March 2011 Chicago.	2010-2011
Member, Task Force on Emergency Evacuation, Transportation Research Board, National Academies of Engineering and the Sciences	2013-present

STATE and LOCAL

Member, Executive Group and Systems Development Subcommittee (1984-86); Citizen Advisory Committee; Project Review Panel for Transit Corridor Analysis Study (since 1987) for the Capital Metropolitan Transportation Authority, Austin, TX.	1984-1995
Member, Operations Subcommittee of Citizen Advisory Committee (CAC) of Capital Metropolitan Transit Authority, (Chairman, 1986-1988 and 1998-1996).	1986-1996
Member, Systems Development Subcommittee and Technical Group of the Citizens Advisory Committee Task Force of Capital Metropolitan Transit Authority.	1987-1989
Member, Houston Intelligent Vehicle Highway Systems Partnership Task Group.	1991-1993
Member, Texas Department of Transportation Freeway Operations Division Intelligent Vehicle Highway Systems (IVHS) Steering Group.	1991
Executive Committee Member, (ex-officio) Texas Division of the Institute of Transportation Engineers (TexITE).	1991-1998
Member, Texas Division of the Institute of Transportation Engineers (TexITE), District 9 Graduate Fellowship Administration Committee.	1993
Member, Austin Intelligent Transportation Systems (ITS) Steering Committee.	1996
Member, Statewide Integrated ITS (Intelligent Transportation Systems) Architecture Development Working Group, Texas Department of Transportation.	1997-2002
Member, (CAMPO), Congestion Management Systems (CAS) working group, Capital Area, MPD, Austin, Plan & Development BRC.	1999-2001
Member, Technical Advisory Panel (TAP) of Research Management Committee on Operations, (RMC 4), Texas Department of Transportation.	2000-2002
Member, Proposal Evaluation Committee for Multimodal Traveler Information System. Project, Baltimore Metropolitan Council, Baltimore, Maryland.	2002-2004

Member, Coordinating Committee for the Baltimore Peer Review (of Transportation Demand Model), Baltimore Metropolitan Council.	2003-2005
Member, Research Advisory Board, Maryland State Highway Administration (SHA).	2003-2005
Member, Planning Committee for the William O. Lipinski Transportation Policy Symposium, Metropolitan Planning Council, Chicago.	2007-Present
Member, Technical Advisory Panel, Planning and Policy Research, Illinois Department of Transportation	2008-2013
Member, Transportation and Logistics Strategy Team, World Business Chicago Plan for Economic Growth and Jobs	2012-2014
Member, Technical Expert Panel, Freight Modeling, Chicago Metropolitan Agency for Planning	2013-Present
Member, Transportation and Logistics Working Team, Alliance for Regional Development	2014-Present

OTHER PROFESSIONAL ACTIVITIES:

Major Conferences Chaired and Organized:

- IATBR 97: 8th Meeting of the International Association of Travel Behavior Research (IATBR), Austin, TX, September 1997.
- TRISTAN III: Triennial Symposium on Transportation Analysis, San Juan, Puerto Rico, July 1998.
- ISTTT16: 16th International Symposium on Traffic and Transportation Theory, University of Maryland, College Park, MD, July 2005.
- INFORMS Annual Meeting, Washington, D.C., October 2008.
- ICEM 2012: 2nd International Conference on Evacuation Modeling, Evanston, IL, August 2012
- ISTTT 22: 22nd International Symposium on Traffic and Transportation Theory, Northwestern University, Evanston, IL., July 2017 (co-chair with Yu (Marco) Nie and Karen Smilowitz).

Refereeing of papers for professional journals including:

American Society of Civil Engineers (ASCE) Journal of Computing in Civil Engineering
American Society of Civil Engineers (ASCE) Journal of Transportation Engineering
Annals of Operations Research
Artificial Intelligence for Engineering, Design and Manufacturing
Automatica
Computer-Aided Civil and Infrastructure Engineering
Computers and Operations Research
Computers, Environment and Urban Systems
Cooperative Transportation Dynamics
EURO Journal on Transportation and Logistics
European Journal of Operations Research
Geographical Analysis
IEEE ITS Transactions
INFOR
ITS Journal
Journal of Advanced Transportation
Journal of the Operational Research Society
Journal of Scheduling
Journal of Transportation and Statistics
Journal of Transport Geography
Management Science
Mathematical and Computer Modeling

Microcomputers in Civil Engineering
Networks
Networks and Spatial Economics
Operations Research
Planning Forum
PNAS (Proceedings of National Academy of Sciences)
Public Transport
Recherche Transport Sécurité (R.T.S.), French Journal
Regional Science and Urban Economics
Science
Scientia Iranica
Technological Forecasting & Social Change
Transportation
Transportation Letters
Transportation Research Parts A, B, C, D and E
Transportation Research Record
Transportation Science
Transportmetrica A and B

Textbook reviewer for:

Elsevier International
 Kluwer, Inc.
 Pergamon Press
 Springer, Inc.
 Wiley, Inc.

Referee of papers for several national and international conferences and professional society meetings

Review of research proposals for:

Engineering and Physical Science Research Council, United Kingdom
Flemish Fund for Scientific Research (F.W.O.), Flanders, Belgium
FONDECYT Program, Chile
Fonds pour la Formation de Chercheurs et l'Aides à la Recherche (Quebec, Canada)
Fonds Quebecois de la Recherche sur la Nature et les Technologies (Quebec, Canada)
Helmholtz Association of German Research Centers, Germany
Hong Kong Foundation for Engineering and Science Research
Hong Kong National Science Board
Hong Kong Research Grant Council
Koerber European Science Award, Koerber Foundation, Germany
Louisiana Board of Regents
Miller Institute for Basic Research in Science at the University of California, Berkeley
Mathematics of Information Technology and Complex Systems Network of Centres of Excellence, Canada
National Science and Engineering Research Council of Canada
National Science Foundation
Region I, University Transportation Center of Excellence, MIT
Region 10, University Transportation Center of Excellence, University of California
Transportation and Crowd Management Center of Research Excellence, Umm-al-Qura University, Saudi Arabia
United States - Israel Binational Science Foundation

Sessions Organized and/or Chaired at INFORMS (and formerly Joint ORSA/TIMS) Meetings:

"Decision-Risk Analysis," Orlando, FL, Fall 1983
 "Traffic Network Models," Dallas, TX, Fall 1984
 "Traffic Networks," Atlanta, GA, Fall 1985
 "Urban Transportation Networks," Los Angeles, CA, Spring 1986
 "Traffic Networks and Models," Miami Beach, FL, Fall 1986
Transportation Science Session Cluster Coordinator and Chairman, New Orleans, LA, Spring 1987.
 "Dynamic Analysis of Transportation Networks," Washington, D. C., Spring 1988
 "In-Vehicle Information Systems and Network Traffic Control," Las Vegas, Nevada, Spring 1990
 "Dynamic Network Assignment and Traffic Simulation Modeling for ATIS/ATMS," Anaheim, CA, Fall 1991
 "Parallel Computer Modeling of Transportation Systems," Williamsburg, VA, January 1992
 "Real Time Traffic Control II," San Francisco, CA, Fall 1992

"Real Time Traffic Control: ATMS and ATIS," Phoenix, AZ, Fall 1993
 "Advanced Traveler Information Systems: Behaviour Considerations," Phoenix, AZ, Fall 1993
 "Dynamic Traffic Assignment," Boston, MA, Spring 1994
 "Advances in Dynamic Assignment for IVHS/ATIS," Boston, MA., Spring 1994
 "Modeling and Algorithms for ATMS in Traffic Networks," Washington, DC, Spring 1996
Transportation Science Session Cluster Coordinator and Chairman, Dallas, TX, Fall 1997
 "In Tribute to Robert Herman," (a two-session tribute to the late Robert Herman), Dallas, TX, Fall 1997
Transportation Science Session Cluster Coordinator and Chairman, Montreal, Canada, Spring 1998
Transportation Science Session Cluster Coordinator and Chairman, Dallas, TX, Fall 1998.
 "Optimum Path Algorithms on Transportation Networks," Cincinnati, OH, Spring 1999
 "Dynamic Fleet Management Session" Salt Lake City, Utah, Spring 2000
 "Enhancing Travel Forecasting Models Session", San Antonio, TX, Fall 2000
 "Dynamic Traffic Assignment Applications", San Jose, CA, Fall 2002

Sessions Organized and/or Chaired at Transportation Research Board Annual Meetings:

"Transportation Supply Models," 67th Annual Meeting, 1988
 "Transportation Supply Models," 68th Annual Meeting, 1989
 "Network Equilibrium and Supercomputing," 68th Annual Meeting, 1989
 "Modeling Congested Traffic Networks with In-Vehicle Information Availability," 69th Annual Meeting, 1990
 "Network Design and Supply Models," 69th Annual Meeting, 1990
 "Traffic Flow Simulation Models," 70th Annual Meeting, 1991
 "Flow Theories and Control Applications," 70th Annual Meeting, 1991
 "Advanced Technology in Freight Transportation: An Intermodal Perspective," 70th Annual Meeting, 1991
 "Time-Sensitive Transportation Services Under Uncertain Demand," 70th Annual Meeting, 1991
 "Network Assignment and Supply Models," 70th Annual Meeting, 1991
 "Advances in Modeling Traffic Information Networks with In-Vehicle Information Systems, parts I and II," 70th Annual Meeting, 1991
 "Network Modeling for ATIS/ATMS," 71st Annual Meeting, 1992
 "Time-Sensitive Transportation Under Uncertain Demand," 71st Annual Meeting, 1992
 "Traffic Flow Theories and Characteristics," 71st Annual Meeting, 1992
 "Advances in Network Analysis and Operations Research in Transportation," 71st Annual Meeting, 1992
 "Innovative Concepts in Supply Modeling," 71st Annual Meeting, 1992
 "Traffic Modeling and Control Applications," 71st Annual Meeting, 1992
 All sessions sponsored by Traffic Flow Theory and Characteristics Committee (A3A11), 73rd - 78th Annual Meetings, Washington, D.C., January 1994 - 1999
 All sessions sponsored by Transportation Supply Analysis Committee (A1C05), 73rd Annual Meeting, Washington, D.C., January 1994
 Organized and chaired special tribute symposium, "Four Decades of Traffic Science: In Memory of Robert Herman," at the 77th Annual Meeting, Washington, D.C., January 1998
 "Congestion Flow Models and Kinetic Theories," 78th Annual Meeting, Washington, 1999
 "Dynamic Traffic Assignment Models, Part 1: Operations and Planning Applications," 78th Annual Meeting, 1999
 "Dynamic Traffic Assignment Models, Part 2: Planning and Evaluation Applications," 78th Annual Meeting, 1999
 "Network Flow and Assignment Models-Session 400," 79th Annual Meeting, 2000
 "Freeway Flow Models and Applications" – Session 136," 80th Annual Meeting, 2001.
 "Dynamic Traffic Assignment and Applications" – Session 370, 80th Annual Meeting, 2001.
 "Network Routing, Management, and Demand Estimation," - Session 461, 80th Annual Meeting, 2001.
 "Highlights from IATBR 2000 Gold Coast Meeting Workshops," – Session 305, 80th Annual Meeting, 2001.
 "Foundations of Traffic Flow Theory: In Memory of Gordon Newell," 81st Annual Meeting, 2002.
 "Congested Traffic Flow: Phenomena and Models," 81st Annual Meeting, 2002.
 "Microscopic Models of Driver Behavior", 82nd Annual Meeting, 2003
 "Cell-Transmission Models and Pattern Recognition in Traffic Networks", 85th Annual Meeting, 2006.
 "Transportation Network Modeling", 85th Annual Meeting, 2006.
 "Transportation Network Models, Part 1", 86th Annual Meeting, 2007.
 "The Case for Pricing: Network Analysis and Modeling", 87th Annual Meeting, 2008.
 "Microscopic Models and Traffic Simulation", 90th Annual Meeting, 2011.

Other Selected Conference Sessions Organized and/or Chaired:

"Longitudinal and Multi-Day Analysis of Travel Behaviour: Toward Dynamic Models of Travel Demand," Fifth World Conference on Transport Research, Yokohama, Japan, 1989

- "Panel Data Survey and Analysis," International Conference on Dynamic Models of Travel Behaviour Analysis, Kyoto, Japan, 1989
- Traffic Simulation and Route Guidance sessions, VNIS'91 IEEE Conference, Dearborn, MI, October 1991
- "Recent Developments and Applications of Equilibrium Assignment Models," Transportation Planning Methods and Applications, Dallas, Texas, 1991
- Chair of invited workshop on Traffic Simulation Models at the Engineering Foundation's Conference on Traffic Management: Issues and Techniques, Gold Coast, Florida, April 1991.
- Session Chair at 2nd Capri Seminar on Urban Traffic Networks, Capri, Italy, July 1992
- Session Chair at 6th World Conference on Transportation Research, Lyon, France, July 1992
- Associazione Italiana di Ricerca Operativa Gironate di Lavoro (AIRO) Conference, Capri, Italy, September 1993.
- "Impact of New Technologies on Travel Behaviour," International Association for Travel Behaviour Research (IATBR-94) Sanitago, Chile, June 1994
- Session chair, International Symposium on Traffic and Transportation Theory, Berkeley (1993) and Lyon (1996)
- Session chair, "Dynamic Assignment" at the PTRC 24th European Transport Forum, Brunel University, London, England, 1996.
- Chair and organizer of the International Association of Travel Behavior Research '97 Conference (IATBR '97) sponsored by The International Association of Travel Behavior Research, co-sponsored by Southwest Region University Transportation Center and Travel Model Improvement Program and the United States Department of Transportation, Austin, Texas, September 21-25, 1997.
- Invited lecturer, session chair and organizer of stream of sessions in the area of "Network Design, Optimal Routing and Scheduling," at the 8th World Conference on Transport Research, Antwerpen, Belgium, July, 1998.
- Co-Chair and organizer of the TRIennial Symposium on Transportation Analysis, (TRISTAN III), sponsored by the Transportation Science Section of the Institute for Operations Research and the Management Sciences (INFORMS), The National Science Foundation, and co-sponsored by Recinto Universitario de Mayagüez, Puerto Rico, Autoridad de Carreteras y Transportation, Puerto Rioc, and the Southwest Region University Transportation Center, San Juan, Puerto Rico, June 17-23, 1998.
- Chair, "Characteristics of Passenger Transport Target Systems," Workshop on Land Transport Policy for Lebanon, Beirut, Lebanon, July, 1999
- Chair, "Analytical Models: Disaggregate Session of the Seminar on Transportation Planning Methods," and member of Transportation Planning Methods Programme Committee, European Transport Conference, Cambridge, UK, September 27-29, 1999.
- Chair, "Fleet Management" Session, Odyssey 2000, Chania, Greece, May 24, 2000.
- Chair, "Freight and Commercial Vehicle Applications" Workshop, 9th IATBR (International Association for Travel Behaviour Research) 2000 Conference, Gold Coast, Queensland, Australia, July 2-6, 2000.
- Organized and chaired Workshop on "Revision of Traffic Flow Theory Monograph," (NAE) National Academy of Engineering, A3A11 Committee/TRB (Transportation Research Board) Meeting, Irvine, CA, August 2000.
- Chair, "Traffic Assignment " Session, Rome Jubilee 2000 EURO Transport Working Group Conference, Rome Italy, September 11-13, 2000.
- Workshop chair, NSF Sponsored Workshop on Real-Time Transportation Logistics, Long Beach, Ca, April 26-28, 2002.
- Chair, "Systemes Intelligents de Transport", Journees De L'Optimisation 2002 Conference, Montreal, Canada, May 7, 2002.
- Chair, "Traffic Information and User Behaviour," Session, 13th Mini-EURO Conference on Handling Uncertainty in the Analysis of Traffic and Transportation Systems and 9th Meeting of the EURO Working Group on Transportation, Bari, Italy, June 10-13, 2002.
- Chair, Plenary Session 6: "ITS and Traffic Assignment," 15th International Symposium on Transportation and Traffic Theory, Adelaide, Australia, July 17, 2002.

- Chair, Plenary Session, 7th Conference of Hong Kong Society For Transportation Studies -- Transportation In The Information Age, Kowloon, Hong Kong, December 2002.
- Workshop Chair, "Models of Behavioural Dynamics", 10th IATBR Conference, Lucerne, Switzerland, July 2003.
- Chair, "Vulnerability and Risk Assessment", Intelligent Transportation Systems Safety and Security Conference, Miami Beach, FL, March 2004.
- Chair, "Tracking data collection and analysis", 11th IATBR Conference, Kyoto, Japan, August 2006.
- Panel Chair, "ITS 2015: Opportunities for the Gulf Region", 1st ITS Middle East Conference, Dubai, UAE, December 2006.
- Chair, Plenary Session 12, 17th International Symposium on Transportation and Traffic Theory, London, UK, July 2007.
- Moderator, "Perspectives on Traffic Flow Theory: Beyond Greenshields", Panel Discussion, Symposium on The Fundamental Diagram: 75 Years (Greenshields 75 Symposium), Woods Hole, MA., July 10, 2008.
- Chair, Plenary Session 5, 18th International Symposium on Transportation and Traffic Theory, Hong Kong, July 17, 2009.
- Chair, Strategic Priorities Workshop, Crowds and Transport Center of Research Excellence (CORE), Hajj Research Institute, Umm al Qura University, Jeddah, May 2010.
- Chair, Advances in Simulation, 3rd International Conference on Road Traffic Safety and Simulation, Indianapolis, IN, September 2011.
- Moderator, "Travel Industry Spotlight: Turbo Charged Data Insight Opportunities", Panel Session at Teradata Partners Users Conference, San Diego, CA., October 2011.
- Organized and chaired one day workshop on "Travel Behavior Research: Gaps and Opportunities", sponsored by FHWA, US DOT, at Northwestern University, Evanston, IL., November 2011.
- Moderator, Technology and Time Use Track at *The Third Workshop on Time Use Observatory*, TUO 3, Santiago, Chile, March 2012.
- Co-organized and moderated (with Bret Johnson) Industry Workshop on [Smarter Cities, Smarter Mobility](#) through the Northwestern University Transportation Center, Evanston, IL, April, 2013.
- Organized and presented one day [Workshop on Analysis of Network and Nonnetwork Impacts Upon Traveler Choice](#), Federal Highway Administration Turner-Fairbanks Highway Research Center, September 2013.
- Organized and delivered session [Good Data Gone Bad: Missed opportunity for Smart Cities and Logistics Firms, Teradata 2013 Partners User Group Conference and Expo.](#), Dallas, TX., October 20, 2013.
- Co-organized and moderated (with Bret Johnson) Industry Workshop on [The Fight for the Last Mile](#), through the Northwestern University Transportation Center, Evanston, IL, October 29, 2013.
- Co-organized and moderated (with Bret Johnson) Industry Workshop on [Autonomous Vehicle Technologies for Passenger and Freight Mobility](#) through the Northwestern University Transportation Center, Evanston, IL, June 10, 2014.
- Organized and chaired the Northwestern University Transportation Center's [60th Anniversary Transportation Summit](#), Evanston, IL, November 14, 2014.
- Co-organized and moderated (with Bret Johnson) Industry Workshop on [Unmanned Aerial Vehicles: Applications and Emergent Technologies](#) through the Northwestern University Transportation Center, Evanston, IL, April 20, 2015.
- Organized and delivered breakout session [Are We There Yet? Connected/Autonomous Vehicles and the Internet of Things, Teradata 2015 Partners Conference and Expo.](#), Anaheim, CA., October 19, 2015.
- Co-organized and moderated (with Bret Johnson) Industry Workshop on [The Internet of Things in Transportation and Logistics](#) through the Northwestern University Transportation Center, Evanston, IL, October 27, 2015.
- Co-organized and moderated (with Bret Johnson) Industry Workshop on [BioLogistics in a Changing Healthcare World](#) through the Northwestern University Transportation Center, Evanston, IL, April 20, 2016.
- Co-organized and moderated (with Bret Johnson) Industry Workshop on [Machine Learning in Transportation and Logistics](#) through the Northwestern University Transportation Center, Evanston, IL, October 26, 2016.

Co-organized and moderated (with Bret Johnson) Industry Workshop on [*Bridging the Future: Innovation in Large-Scale Infrastructure Development*](#) through the Northwestern University Transportation Center, Evanston, IL, May 3, 2017.

Co-organized and moderated (with Bret Johnson) Industry Workshop on *Making the Customer Happy* through the Northwestern University Transportation Center, Evanston, IL, October 18, 2017.

Short Courses Organized and Taught

Invited tutorial on "Intelligent Transportation Systems," Institute for the Operations Research and the Management Sciences (INFORMS) Meeting, Montreal, Canada, April 28, 1998.

Invited tutorial demonstration "DYNASMART-X Real-time Dynamic Traffic Assignment System," for (ITS '98), Intelligent Transportation Society of America 8th Annual Meeting and Exposition, Intelligent Transportation Systems: Technology for Today, Detroit, Michigan, May 4-7, 1998.

Developed content and material for web-based tutorial on "Modeling Approaches in Transportation Systems Planning and Evaluation," course entitled "Essential Competencies for the Transportation Professional of the Future," University of Michigan, Ann Arbor, MI, April 28, 2000.

Participated as faculty for "*Airport Modeling and Simulation Short Course*", The University of Texas at Austin, Austin, Texas, 1998, 1999.

Invited lecture, "DYNASMART-IP: Dynamic Traffic Assignment Meso-Simulator for Intermodal Networks," University of Rome, Italy, Department of Civil Engineering, *Advanced Course on Transit Networks*, May 2001.

Participated in organizing, developing and teaching short course at *Massachusetts Institute of Technology (MIT) Summer Professional Program 1.10s, Modeling and Simulation for Dynamic Transportation Management Systems*, Summer 1998 through present.

Organized and was lead instructor in Training Workshop for *DYNASMART-P: Intelligent Transportation Network Planning Tool*; held at the National Highway Institute in Arlington, VA (August 2002) and on the campus of the University of Maryland, College Park (October 2002; November, 2004; April 2005); hosted by the Federal Highway Administration Office of Research and Development and the Maryland Transportation Initiative, University of Maryland.

Invited instructor, Croucher Advanced Study Institute On *Advanced Modeling For Transit Operations And Service Planning*, December 9-13, 2002, Harbour Plaza Metropolis, Hong Kong.

Organized and taught two-day workshop *Developments in Dynamic Network Assignment Models and Applications*, sponsored by DHV Consultancy and the Maryland Transportation Initiative, Amsterfoort, The Netherlands, March 2003.

Invited instructor in the *International Study Week On Advanced Transportation Modelling And Tools*, Hellenic Institute of Transport, Thessaloniki, Greece, September 5-9, 2005.

Invited instructor in short course on *Dynamic Traffic Management and Evacuation*, held in conjunction with IEEE ITCS 2006 Conference, Toronto, September 17, 2006.

Invited instructor in the *Workshop on Recent Advances in Transportation Engineering -2007*, Indian Institute of Technology, Madras, India, January 10-12, 2007.

Instructor in *Panama Canal Pricing Workshop*, Organized by Northwestern University's Transportation Center and the Panama Canal Authority, Panama, March 24-28, 2008.

Organized and taught one-week short course on "*Dynamic Network Models And Application To Congestion Pricing And Integrated System Management*", in the Official Master In Logistics, Transport And Mobility at the Universitat Politècnica de Catalunya, Barcelona, May 13-16, 2008.

Invited Lecturer on *Crowd Dynamics and Management*, Washington D.C. Police Academy, in conjunction with preparations for President Obama's inauguration, January 11, 2009.

- Participated in organizing, developing and teaching executive program on *Pricing Transportation Infrastructure*, offered by Northwestern University's Transportation Center, Fall 2009 through present.
- Participated in organizing, developing and teaching executive program on *Freight Transportation Strategies for a Changing Landscape*, offered by Northwestern University's Transportation Center, Fall 2010 through present.
- Invited Lecturer, "Advances in Dynamic Modeling of Transport Networks for Large-Scale Applications -- Reliability, Pricing, Weather, and Traveler Heterogeneity", *Masterclass: Advanced Modeling of Transport*, offered by Technical University of Delft, June 16, 2011.
- Invited Lecturer on *Crowd Dynamics and Management: Principles and Best Practices*, Washington D.C. US Secret Service and US Senate, in conjunction with preparations for Presidential inauguration in January 2013; several sessions between March and December 2012.
- Invited Lecturer, "Modeling Behavior -- Expanding boundaries and Implications for System Management", *Masterclass: Human Behavior in Traffic Models*, offered by Technical University of Delft, July 4, 2012.
- Invited Lecturer, "How Long Would It Have Taken to Safely Evacuate Long Island During Hurricane Sandy? Analytical and Simulation Approaches", *Masterclass: Preparedness for large-scale disasters*, offered by TRAIL at the Technical University of Delft, February 18, 2013.
- Invited Lecturer on *Crowd Dynamics and Management*, AMTRAK security planning and operations team, Washington D.C., May 2013.
- Invited Lecturer, "Pricing Policy Evaluation with Dynamic Network Models: Heterogeneous User Preferences and Reliability Valuation", *Masterclass: Use of Advanced Models for Policy Analysis*, Dutch Ministry of Infrastructure and Public Works, Noordwijk, NL., July 16, 2013.
- Invited Lecturer on *Crowd Dynamics and Management*, US Secret Service and Philadelphia police department, in conjunction with preparations for Pope Francis' visit to the USA, April 17, 2015.
- Co-organizer (with Dan Work and Hans VanLindt) of week-long Workshop on Traffic Estimation, part of long course on transportation estimation, prediction and control, Institute for Pure and Applied Mathematics, UCLA, October 12-16. 2015.

Other selected professional activities:

- Invited participant in NSF-sponsored Workshop on Nonlinear Decision Systems, Santa Barbara, CA , November, 1982.
- Invited participant in NSF-sponsored conference on Transportation Research, Evanston, IL , March, 1985.
- Invited participant in NSF-sponsored conference on Analysis Methods in Infrastructure Rehabilitation, Cambridge, MA , May, 1985.
- Invited participant in Mobility 2000 Meeting, and IVHS R&D needs work group, Dallas, Texas, March, 1990.
- External examiner and doctoral committee member of Belgacem Bouzaienne-Ayyari, Centre de Recherche sur les Transports, Université de Montréal, 1994.
- Invited guest speaker, The Second LAAS International Conference on Computer Simulation, Beirut, Lebanon, September, 1997.
- Invited participant, 5th Advisory Meeting of the University of Puerto Rico Civil Infrastructure Research Center, University of Puerto Rico, Mayagüez, November 12-15, 1997.
- Invited participant in "Workshop on Planning, Design, Management, and Control of Transportation Systems," *National Science Foundation*, Arlington, VA, December 14-16, 1997.
- Invited participant, The Middle East in the New Millennium Diplomatic Perspectives Conference, Austin, Texas, April 12, 1999.

- Invited participant, Workshop on Intelligent Transportation Systems: Developments and Opportunities, American University of Beirut, Lebanon, September 21-27, 1999.
- Invited participant, Bureau of Transportation Statistics (BTS) Freight Data Round Table Workshop, Washington, D.C., November 14, 2000.
- External reader and examiner of Thesis of Mohammed Moghrabi, Department of Civil and Environmental Engineering, American University of Beirut, April 2000.
- External reader and examiner of Thesis of Shadi Shazbak, Department of Civil and Environmental Engineering, American University of Beirut, December 2000.
- External doctoral committee member of S. Travis Waller, Department of Industrial Engineering, Northwestern University; exam conducted in November 2000.
- External examiner for the Research Committee of The Hong Kong Polytechnic University, for Mr. Chang King Sun, Ph.D. Candidate. Title of dissertation is "Advances of Stochastic Traffic Assignment Model for Driver Information System Applications." Exam conducted in August 2001.
- External examiner for the doctoral dissertation of Florence Giorgi, LICIT/INRETS and INSA, Lyon, France. Title of dissertation is "Prise en compte des transports en commun de surface dans la modélisation macroscopique de l'écoulement du trafic"; exam conducted in November 2002.
- External member of the jury of the Doctoral Habilitation Thesis of Habib Hadj-Salem, Université D'Evry-Val-d'Essonne, France; exam conducted in December 2002.
- External examiner of the doctoral dissertation of Alexandre Torday, "Elaboration d'un Systeme de navigation Aliménte (SNA) et Evaluation de ses Performances", Ecole Polytechnique Federale de Lausanne, Switzerland; exam conducted in November 2004.
- Invited round table panelist on "TRAFFIC CONGESTION, BEHAVIOR THEORY, AND IMAGINATION" at The Philoctetes Center For The Multidisciplinary Study Of Imagination, New York Psychoanalytic Institute, New York City, September 9, 2006.
- External member of the doctoral dissertation committee of Marc Miska, "Real time Traffic Management by Microscopic Online Simulation", Technical University of Delft, The Netherlands; exam conducted in January 2007.
- Invited participant in First Indo-US Symposium on Advances in Mass Transit and Travel Behaviour Research (MTTBR-08), IIT-Guwahati, India, February 12-15, 2008.
- Invited Briefing to Deputy Secretary for Policy and staff at the US Department of Transportation, on anticipatory dynamic pricing and evaluation of congestion pricing schemes, Washington, DC., March 7, 2008.
- Invited closing panelist and session chair, NEXTRANS Center Inaugural Summit, Purdue University, IN, May 5, 2008.
- External examiner of the doctoral dissertation of Saskia Ossen, "Longitudinal Driving Behavior: Theory and Empirics", Technical University of Delft, The Netherlands; exam conducted in September 2008.
- External member of the doctoral dissertation committee of Thomas Durlin, "Vers une Affectation Dynamique Opérationelle", Institut National des Sciences Appliquées de Lyon, École Doctorale Mécanique, Énergétique, Génie Civil et Acoustique (MEGA), Lyon, France; exam conducted in September 2008.
- External examiner of the doctoral dissertation of David Charypar, "Efficient Algorithms for the Travel Behavior Microsimulation of Very Large Scenarios", ETH Zürich, Switzerland; exam conducted in October 2008.
- External examiner of the doctoral dissertation of Enide Bogers, "Traffic Information and Learning in Day-to-Day Route Choice Dynamics", Technical University of Delft, The Netherlands; exam conducted in June 2009.
- Moderator of panel on Economic Impact of Rail on Logistics, at workshop *The Way Forward: The Economic Impact of Rail in Illinois*, Governor's Office and NUTC, January 2010.

- External examiner of the doctoral dissertation of Jordan Ludders Srour, “Drayage: Models and Algorithms”, Decision Sciences Dept., Erasmus School of Management, Rotterdam, The Netherlands; exam conducted in February 2010.
- Invited panelist on *Research Directions* at the NSF Workshop on Dynamic Route Guidance and Coordinated Traffic Control, Rutgers, June 2010.
- External member of the jury of the Doctoral Habilitation Thesis of Christine Buisson, Université de Lyon, France; exam conducted in September 2010.
- External member of the jury of the Doctoral Dissertation of Romain Billaud, Université de Lyon, France; exam scheduled for December 2010.
- External examiner of the doctoral dissertation of Raymond Hoogendoorn, “Empirical Research and Modeling of Longitudinal Driving Behavior Under Adverse Conditions”, Technical University of Delft, The Netherlands; exam conducted in June 2012.
- External examiner of the doctoral dissertation of Olga Huibregtse, “Robust Model-based Guidance of Evacuation Guidance”, Technical University of Delft, The Netherlands; exam conducted in February 2013.
- Invited participant and speaker “System Connectivity And Mobility: Opportunities For K.A. KARE”, *Transportation Innovation Workshop*, King Abdullah City for Atomic and Renewable Energy, KSA, April 7, 2013.
- Invited panelist and focus area leader on *Transportation Project* at the CitySMART Innovation-Collaboration Workshop, UILabs, Chicago, IL, March 2014.
- External member and examiner of doctoral dissertation committee of Hani Al-Naghi, “Methodology to Assess the Feasibility of Ridesharing Alternatives for a University Campus”, Department of Civil and Environmental Engineering, American University of Beirut, September 2014.
- External member (rapporteur) of the doctoral dissertation committee of Florian Marczak, “Observation empirique et modélisation des discontinuités du réseau autoroutier : Vers l’estimation des capacités”, École Nationale des Travaux Publics de l’État, École Doctorale Mécanique, Énergétique, Génie Civil et Acoustique (MEGA), Lyon, France; exam conducted in October 2014.
- External Appraiser of doctoral dissertation committee of Siva Srikukenthiran, “Integrated Microsimulation Modelling of Crowd and Subway Network Dynamics for Disruption Management Support”, University of Toronto School of Graduate Studies, February 2015.
- External member and examiner of doctoral dissertation committee of Tien Mai, “Dynamic programming approaches for estimating and applying large-scale discrete choice models”, Department of Computer Science and Operations Research (DIRO), Université de Montréal, November 2015.
- Invited participant, *Roundtable on Quantifying the Socio-Economic Benefits of Transport*, International Transport Forum, Organisation for Economic Co-operation and Development (OECD), Paris, France November 9-10, 2015.
- External examiner of the doctoral dissertation of Tien Mai, “Dynamic programming approaches for estimating and applying large scale discrete choice models”, Université de Montréal, Québec, Canada; exam conducted on February 20, 2016.
- External member and examiner of the doctoral dissertation of Ma, Yinyi, “The Use of Advanced Transportation Monitoring Data for Official Statistics”, Erasmus University Rotterdam, The Netherlands; exam conducted on June 3, 2016.
- Invited participant, Panel on Have we reached peak driving? Planning for future travel in the Chicago region, ONTO 2050 Big Ideas Forum, Chicago Metropolitan Agency for Planning, Evanston, IL. September 22, 2016.
- External examiner of the doctoral dissertation of Dorine Duives, “Analysis and Modeling of Pedestrian Movement Dynamics at Large-Scale Events”, Technical University of Delft, The Netherlands; exam conducted on October 10, 2016.

External member (rapporteur) of the doctoral dissertation committee of Maxime Gueriau, “Systèmes multi-agents, auto-organisation et contrôle par apprentissage constructiviste pour la modélisation et la régulation dans les systèmes coopératifs de trafic”, Université Claude Bernard Lyon 1, École Doctorale ED512, Informatique et Mathématiques, Lyon, France; exam conducted on December 7, 2016.

External member of the doctoral dissertation committee of Marija Nikolic, “Data-driven fundamental models for pedestrian movements”, Programme doctoral en Génie Electrique, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland; exam conducted on February 10, 2017.

External examiner of the doctoral dissertation of Mehdi Nourinejad, “Economics of Parking: Short, Medium and Long-Term Planning”, University of Toronto, Ontario, Canada; exam conducted on April 5, 2017.

External member of the doctoral dissertation committee of Mohammadreza Saeedmanesh, “Dynamic clustering and control for large scale urban networks”, Programme doctoral en Génie Civil et Environnement, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland; exam conducted on November 10, 2017.

PUBLICATIONS:**A. Refereed Archival Journal Publications**

- Mahmassani, H.S., Bevilacqua, O. and Sinha, K., "Framework for Transferring Travel Characteristics of Small Urban Areas," *Transportation Research Record* 730, 1979.
- Mahmassani, H.S. and Sheffi, Y., "Queuing and Search Delays Due to Gasoline Station Closings," *Transportation Research Record* 764, 1980.
- Sheffi, Y., Mahmassani, H.S. and Powell, W., "Evacuation Studies at Nuclear Power Plants: A New Challenge for Transportation Engineers," *ITE Journal*, Vol. 51, No. 6, 1981.
- Mahmassani, H.S. and Sinha, K., "Bayesian Updating of Trip Generation Parameters," *Transportation Engineering Journal of the American Society of Civil Engineers (ASCE)*, Vol. 107, No. TE5, 1981.
- Mahmassani, H.S. and Sheffi, Y., "Using Gap Sequences to Estimate Gap Acceptance Functions," *Transportation Research B*, Vol. 15B, No. 3, 1981.
- Sheffi, Y. and Mahmassani, H.S., "A Model of Driver Behaviour at High Speed Signalized Intersections," *Transportation Science*, Vol. 15, No. 1, 1981.
- Sheffi, Y., Mahmassani, H.S., and Powell, W., "A Transportation Network Evacuation Model," *Transportation Research A*, Vol. 16A, No. 3, 1982.
- Mahmassani, H.S. and Krzysztofowicz, R., "A Behaviourally-Based Framework for Multi-Criteria Decision-Making Under Uncertainty in the Urban Transportation Context," *Environment and Planning B*, Vol. 10, pp. 193-206, 1983.
- Mahmassani, H.S. and Gakenheimer, R., "Budget Estimation for Transportation Project Programming Under Uncertainty," *Third World Planning Review*, Vol. 5, No. 2, 1983.
- Mahmassani, H.S. and Gakenheimer, R., "Simple Techniques for Incorporating Institutional Preference Information in Programming Urban Transportation Investments," *Computers, Environment and Urban Systems*, Vol. 8, No. 2, pp. 51-62, 1983.
- Mahmassani, H.S. and Herman, R., "Dynamic User Equilibrium Departure Time and Route Choice on Idealized Traffic Arterials," *Transportation Science*, Vol. 18, No. 4, 1984.
- Mahmassani, H.S., Williams, J. and Herman, R., "Investigation of Network-Level Traffic Flow Relationships: Some Simulation Results," *Transportation Research Record* 971, pp. 121-130, 1984.
- Mahmassani, H.S. and Toft, G., "Transportation and High Technology Economic Development," *Transportation Research Record* 984, pp. 22-29, 1984.
- Mahmassani, H.S., "Uncertainty in Transportation System Evaluation: Issues and Approaches," *Transportation Planning and Technology*, Vol. 9, No. 1, pp. 1-12, 1984.
- Chang, G-L., Mahmassani, H.S. and Herman, R., "A Macroparticle Traffic Simulation Model to Investigate Peak-Period Commuter Decision Dynamics," *Transportation Research Record* 1005, pp. 107-120, 1985.
- Toft, G. and Mahmassani, H.S., "Analysis of Air Freight Transportation Associated with High Technology Manufacturing Development," *Transportation Research Record* 1038, pp. 90-96, 1985.
- Williams, J., Mahmassani, H.S. and Herman, R., "Analysis of Traffic Network Flow Relations and Two-Fluid Model Parameter Sensitivity," *Transportation Research Record* 1005, pp. 95-106, 1985.
- Manning, F. and Mahmassani, H.S., "Consumer Valuation of Foreign and Domestic Vehicle Attributes: Econometric Analysis and Implications for Auto Demand," *Transportation Research A*, Vol. 19A, No. 3, pp. 243-251, 1985.

- Mahmassani, H.S. and Chang, G-L., "Dynamic Aspects of Departure Time Choice Behaviour in a Commuting System: Theoretical Framework and Experimental Analysis," *Transportation Research Record* 1037, pp. 88-101, 1985.
- Lerman, S. and Mahmassani, H.S., "The Econometrics of Search," *Environment and Planning A*, Vol. 17, No. 8, pp. 1009-1024, 1985.
- Mahmassani, H.S. and Michalopoulos, P., "Traffic Science: Perspectives on Future Research," *Transportation Research A*, Vol. 19A, No. 516, 1985.
- Mahmassani, H.S. and Toft, G., "Transportation Requirements for High Technology Industrial Development," *Transportation Engineering Journal of the American Society of Civil Engineers (ASCE)*, Vol. 111, No. 6, pp. 473-484, 1985.
- Mahmassani, H.S. and Toft, G., "Transportation Issues Related to High Technology Development in Medium-Sized Urban Areas," *Transportation Quarterly*, Vol. 39, No. 2, 1985.
- Souleyrette II, R., Mahmassani, H.S. and Walton, C. M., "An Operational Typology for Toll Financing of Highways," *Transportation Research Record* 1077, pp. 5-13, 1986.
- Mahmassani, H.S. and Tong, C-C, "Availability of Information and Departure Time Choice Dynamics: Experimental Investigation," *Transportation Research Record* 1085, pp. 33-47, 1986.
- Mahmassani, H.S. and Chang, G-L., "Experiments with Departure Time Choice Dynamics of Urban Commuters," *Transportation Research B*, Vol. 20B, No. 4, pp. 297-320, 1986.
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- Mahmassani, HS, Hong, Z, Xu, X., Mittal, A., Yelchuru, B. and Kamalanathsharma, R. *Analysis, Modeling, and Simulation (AMS) Testbed Development and Evaluation to Support Dynamic Mobility Applications (DMA) and Active Transportation and Demand Management (ATDM) Programs — Evaluation Report for the Chicago Testbed*. Research Report [FHWA-JPO-16-387](#), Office of Operations, Federal Highway Administration, US DOT, 2017.
- Yelchuru, B., Mahmassani, and Kamalanathsharma, R. *Analysis, Modeling, and Simulation (AMS) Testbed Development and Evaluation to Support Dynamic Mobility Applications (DMA) and Active Transportation and Demand Management (ATDM) Programs — Evaluation Summary for the Chicago Testbed*. Research Report FHWA-JPO-16-388, Office of Operations, Federal Highway Administration, US DOT, 2017.

ORAL PRESENTATIONS:

- Mahmassani, H.S., Bevilacqua, O. and Sinha, O., "Framework for Transferring Travel Characteristics of Small Urban Areas," *58th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1979.
- Mahmassani, H.S. and Sheffi, Y., "Queuing and Search Delays Due to Gasoline Station Closings," presented at the *Fall Joint Operations Research Society of America/Institute of Management Sciences (ORSA/TIMS) Meeting*, Colorado Springs, CO, 1980.
- Mahmassani, H.S. and Sheffi, Y., "A Model of Driver Behaviour at High Speed Signalized Intersections," *59th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1980.
- Mahmassani, H.S. and Sheffi, Y., "Queuing and Search Delays Due to Gasoline Station Closings," *59th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1980.
- Mahmassani, H.S. and Sheffi, Y., "Using Gap Sequences to Estimate Gap Acceptance Functions," *60th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1981.
- Mahmassani, H.S., "Evacuation Studies for Nuclear Power Plant Sites," seminar sponsored by the *Department of Civil Engineering and the Division of Environmental Studies*, University of CA, Davis, April 1981.
- Mahmassani, H.S. and Lerman, S., "The Econometrics of Search," invited paper at the *Annual North American Meeting of the Regional Science Association*, Montreal, Canada, 1981.
- Mahmassani, H.S. and Krzysztofowicz, R., "Multi-Criteria Decision-Making Under Uncertainty: A Behaviourally-based Approach," *Fall Joint Operations Research Society of America/Institute of Management Sciences (ORSA/TIMS) Meeting*, Houston, TX, 1981.
- Mahmassani, H.S., "Network Evacuation Around Nuclear Power Plant Sites," seminar sponsored by the *Department of Civil Engineering, State University of New York at Buffalo, NY*, 1981.
- Mahmassani, H.S., Sheffi, Y. and Powell, W., "NETVAC: A Network Evacuation Model," *60th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1981.
- Mahmassani, H.S., "Congestion Pricing as a Tool for Efficient Peak Period Operation of Transportation Facilities," Guest Lecture in *CE 391J*, The University of Texas, Austin, TX, April 1982.
- Mahmassani, H.S., "Methodological Support for Transportation Decision-Making Under Uncertainty," *Transportation Graduate Seminar, The University of Texas, Austin, TX*, 1982.
- Mahmassani, H.S., "A Self-Organizing Model of Migration and Economic Development: Progress to Date," *Purdue University's Institute of Interdisciplinary Engineering Studies*, West Lafayette, IN, Nov. 1982.
- Mahmassani, H.S., "Research Activities in Nonlinear Decision Systems," *National Science Foundation Workshop on Nonlinear Decision Systems*, Santa Barbara, CA, December 1982.
- Mahmassani, H.S., "Technology Innovation, Firm Emergence and Location," *National Science Foundation Workshop on Nonlinear Decision Systems*, Santa Barbara, CA, December 1982.
- Mahmassani, H.S., "Calibration of Dynamic Nonlinear Systems Models," *National Science Foundation Workshop on Nonlinear Decision Systems*, Santa Barbara, CA, December 1982.
- Mahmassani, H.S., "A Binary Preference Relation for Aiding Transportation Decisions Under Uncertainty," presented at the *Fall Joint Operations Research Society of America/Institute of Management Sciences (ORSA/TIMS) Meeting*, Orlando, FL, November 1983.

- Mahmassani, H.S., "Multicriteria Decision Making," guest presentation to group of highway professionals from state departments of transportation nationwide attending a special course on Pavement Design and Management at UT-Austin, under *U.S. Federal Highway Administration*, March 1983.
- Mahmassani, H.S. and Toft, G., "Transportation and High Technology Economic Development," *63rd Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1984.
- Mahmassani, H.S., "Assessment and Identification of Truck Lane Needs in a Highway Network," invited presentation at the *Annual Convention of the American Society of Civil Engineers*, San Francisco, CA, 1984.
- Mahmassani, H.S., Williams, J., and Herman, R., "Development of Network-Level Traffic Performance Models Using Simulation Experiments," *Fall Joint Operations Research Society of America/ Institute of Management Sciences (ORSA/TIMS) Meeting*, Dallas, TX, 1984.
- Mahmassani, H.S., Herman, R., and Chang, G-L, "Experiments with Departure Time Dynamics," invited paper at the *Spring Joint Operations Research Society of America/ Institute of Management Sciences (ORSA/TIMS) Meeting*, San Francisco, CA, 1984.
- Mahmassani, H.S., Chang, G-L, and Herman, R., "Investigation of User Choice Dynamics in a Commuting Corridor," *Fall Joint Meeting of the Operations Research Society of America/Institute of Management Sciences (ORSA/TIMS) Meeting*, Dallas, TX, 1984.
- Mahmassani, H.S., "A Network Planning Model for Emergency Evacuation," *Joint Meeting of the Texas Section of the Institute of Transportation Engineers and the Southwestern Section of the International Municipal Signal Association*, Amarillo, TX, 1984.
- Mahmassani, H.S. and Toft, G., "Transportation Requirements of High Technology Industrial Development," *Special Symposium on the Role of Urban Transportation in Regional Economic Development, Annual Conv. of the American Society of Civil Engineers*, San Francisco, CA, 1984.
- Mahmassani, H.S., Chang, G-L., and Herman, R., "A Macroparticle Traffic Simulation Model to Investigate Peak-Period Commuter Decision Dynamics," *64th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1985.
- Mahmassani, H.S. and Toft, G., "Analysis of Air Freight Transportation Associated with High Technology Manufacturing Development," *64th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1985.
- Mahmassani, H.S. and Mannering, F., "Consumer Valuation of Foreign and Domestic Vehicle Attributes: Econometric Analysis and Its Implications for Auto Demand," *64th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1985.
- Mahmassani, H.S. and Herman, R., "Interaction of Trip Decisions and Traffic System Dynamics," invited paper at the Workshop on Modelling Complex Systems, organized by the *Center for Studies in Statistical Mechanics, The University of Texas, Austin, TX*, 1985.
- Mahmassani, H.S., "Transportation Requirements of High Technology Economic Development," invited paper at the *Spring Meeting of the Texas Branch of the American Society of Civil Engineers*, Austin, Texas, March, 1985.
- Mahmassani, H.S., Williams, J., and Herman, R., "Modelling Urban Traffic Network Performance," presented at the *Fall Joint Annual Meeting of the Operations Research Society of America and the Institute for Management Sciences (ORSA/TIMS)*, Atlanta, GA, 1985.
- Mahmassani, H.S., Massimi, J., and Mouskos, K., "Network Design Heuristics for the Selection of Highway Link Improvements for Two User Classes," presented at the *Fall Joint Operations Research Society of America /Institute for Management Sciences (ORSA/TIMS) Meeting*, Atlanta, GA, 1985.

- Mahmassani, H.S., Walton, C.M., and Souleyrette II, R., "Toll Financing of Highways: The Texas Experience," *Special Conference on Innovative Financing in Transportation*, The University of Virginia, Charlottesville, VA, 1985.
- Mahmassani, H.S., "Demand Estimation for Rural Public Transit in Texas" presented at the *Area A Research Advisory Committee Meeting of the Texas State Department of Highways and Public Transportation (SHDPT)*, Austin, Texas, October 1985.
- Mahmassani, H.S., "Use of Robotics in Highway Construction," invited paper at the *Transportation Research Symposium Center for Transportation Research*, University of Texas, Austin, TX, July 1985.
- Mahmassani, H.S., Souleyrette II, R.R., and Walton, C.M., "An Operational Typology for Toll Financing of Highways," *65th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1986.
- Mahmassani, H.S. and Walton, C.M., "Study of Truck Lane Needs," presented at the *Spring Area I Meeting of the State Department of Highways and Public Transportation*, Waco, Texas, February 1986.
- Mahmassani, H.S., Williams, J., and Herman, R., "Sampling Strategies for Estimating Network Traffic Flow Characteristics," *65th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1986.
- Mahmassani, H.S. and Chang, G-L., "Specification and Estimation of a Dynamic Departure Time Acceptability Model in Urban Commuting," *65th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1986.
- Mahmassani, H.S. and Tong, C-C, "Information Availability and Departure Time Choice Dynamics: Experimental Investigation," *65th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1986.
- Mahmassani, H.S., and Chang, G-L, "System Optimal Time-Dependent Flows in Congested Urban Commuting Networks," *Spring Joint Annual Meeting of the Operations Research Society of America and the Institute for Management Sciences (ORSA/TIMS)*, Atlanta, GA, April, 1986.
- Mahmassani, H.S. and Chang, G-L, "System Optimal Time Dependent Flows," *Spring Joint Annual Meeting of the Operations Research Society of America and the Institute for Management Sciences (ORSA/TIMS)*, Los Angeles, CA, 1986.
- Mahmassani, H.S., Williams, J., and Herman, R., "Urban Traffic Network Performance and Flow Relations," the *Fall Joint Spring Joint Annual Meeting of the Operations Research Society of America and the Institute for Management Sciences (ORSA/TIMS) Meeting*, Miami Beach, FL, October, 1986.
- Mahmassani, H.S., Carey, D. and Toft, G.S., "Air Freight Usage Patterns of Technology-Based Industries," *65th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., 1986.
- Mahmassani, H.S., "Toll Roads Financing: Project Findings," *Area A Research Advisory Committee Meeting of the Texas State Department of Highways and Public Transportation*, Austin, Texas, November 1986.
- Mahmassani, H.S., "A Discussion of Kitamura's Evaluation of Activity Analysis," invited presentation at special panel on "Activity-Based Travel Analysis: A Retrospective Evaluation," at the *66th Annual Meeting of the Transportation Research Board*, Washington, D.C., January, 1987.
- Mahmassani, H.S. and Chang, G-L, "Dynamics of Commuting Decision Behaviour in Urban Transportation Networks," *Fifth International Conference on Travel Behaviour*, Institute National de Recherché sur les Transports et leur Sécurité, Aix-en-Provence, France, 1987.

- Mahmassani, H.S. and Stephan, D., "Dynamics of Departure Time and Route Choice Decisions," invited presentation at the *Spring Joint Meeting of the Operations Research Society of America and The Institute of Management Sciences (ORSA/TIMS)*, New Orleans, LA, May 1987.
- Mahmassani, H.S. and Kim, Y.G., "Link Performance Functions for Urban Freeways with Asymmetric Car-Truck Interactions," *66th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1987.
- Mahmassani, H.S. and Kim, Y.G., "Effect of Traffic Mix, Volume and Geometrics on the Trip Time of Cars and Trucks in Urban Freeways," *66th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 1987.
- Mahmassani, H.S., "Guidelines and Suggestions for NSF Proposals," presented as invited panelist in session on "How to Prepare a Proposal for the Support of Transportation Research by the National Science Foundation" at the *66th Annual Meeting of the Transportation Research Board*, Washington, D. C., January 1987.
- Mahmassani, H.S., Williams, J.C., and Herman, R., "Urban Traffic Network Flow Models," *66th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 1987.
- Mahmassani, H.S., Chang, G-L, and Tong, C-C, "Travel Time Prediction and Information Availability in Commuter Behaviour Dynamics," *66th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 1987.
- Mahmassani, H.S., Mouskos, K.C., and Walton, C.M., "Application and Testing of the Diagonalization Algorithm for the Evaluation of Truck-Related Highway Improvement," *66th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 1987.
- Mahmassani, H.S., Williams, J., and Herman, R., "Sampling Strategies for Estimation of Traffic Network Parameters with Individual Vehicles," the *Fall Joint Meeting of the Operations Research Society of America and the Institute for Management Sciences (ORSA/TIMS)*, St. Louis, MO, October, 1987.
- Mahmassani, H.S., "Transportation Network Equilibrium Assignment Problems: Recent Results and Current Research," *Operations Research Seminar*, Department of Mechanical Engineering, The University of Texas, Austin, TX, December 1987.
- Mahmassani, H.S., Williams, J. C., and Herman, R., "Performance of Urban Traffic Networks," *Tenth International Symposium on Transportation and Traffic Theory*, Boston, MA, 1987.
- Mahmassani, H.S., "The Dynamics of Urban Commuting Behaviour: An Experimental Approach," invited speaker in *Transportation Seminar Series*, Northwestern University, Evanston, IL, 1988.
- Mahmassani, H.S., "Fare Strategies and Pricing Structures: A Synthesis," *Capital Metropolitan Transit Authority*, Austin, Texas, June 1988.
- Mahmassani, H.S., "Fare Elasticity of Transit Patronage," *Capital Metropolitan Transit Authority*, Austin, Texas, June 1988.
- Mahmassani, H.S. and Stephan, D.G., "Experimental Investigation of Route and Departure Time Choice Dynamics of Urban Commuters," *67th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1988.
- Mahmassani, H.S., Chang, G-L, and Engquist, M.L., "System Optimal Trip Scheduling and Routing in Commuting Networks," *67th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1988.
- Mahmassani, H.S., "Interaction of Route Choice and Trip Timing Decisions in Traffic Networks," *Joint National Meeting of the Operations Research Society of America and The Institute of Management Sciences (ORSA/TIMS)*, Washington, D. C., April 1988.
- Mahmassani, H.S. and Herman, R., "Interactive Experiments for the Study of Trip maker Behaviour Dynamics in Congested Commuting Systems," *Oxford Conference on Travel Behaviour (New Developments in Dynamic and Activity-Based Approaches)*, Oxford University, U.K., 1988.

- Mahmassani, H.S., "Role of Laboratory Experiments in the Study of Travel Behaviour Dynamics," invited presentation at Conference Session "Do the Data Tell the Truth: The Validity of Stated Preference Techniques," at the *67th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 1988.
- Mahmassani, H.S., "The Role of Toll Roads in a Highway System," *First Annual Transportation Engineering Conference*, Monterey, Nuevo Leon, Mexico, May 1988.
- Mahmassani, H.S., "Introduction to the Database Management System for Operations Planning," *Capital Metropolitan Transit Authority*, Austin, Texas, October 1988.
- Mahmassani, H.S., "Information Technologies for Network Traffic Control: Overview of Research Results," *General Motors Research Laboratories*, Austin, Texas, November 1988.
- Mahmassani, H.S., "Dynamic Demand and Supercomputing," invited tutorial, *International Conference on Applications of Advanced Technologies in Transportation Engineering*, American Society of Civil Engineers, San Diego, CA, February 1989.
- Mahmassani, H.S. and Mouskos, K.C., "Vectorization of Transportation Network Equilibrium Assignment Codes," *Impact of Recent Computer Advances on Operations Research*, Operations Research Society of America, Williamsburg, VA, 1989.
- Mahmassani, H.S. and Mouskos, K.C., "Guidelines and Computational Results for Vector Processing of Traffic Assignment Codes on Super computers," *68th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1989.
- Mahmassani, H.S. and Tong, C-C, "Temporal Stability of Model Parameters for Trip Timing Decisions: An Econometric Analysis," *68th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1989.
- Mahmassani, H.S. and Tong, C-C, "Dynamic Models of Commuting Switching Decisions," invited presentation at the *Joint Meeting of the Canadian Operations Research Society, The Operations Research Society of America and the Institute for Management Sciences*, Vancouver, British Columbia, May 1989.
- Mahmassani, H.S., "Congestion Modelling in Vehicular Traffic Networks," invited presentation, *General Motors Research Laboratories*, Warren, Michigan, May 1989.
- Mahmassani, H.S., "System Performance and User Response under Real-Time Information in a Congested Traffic Corridor," invited paper, *US-Italy Joint Seminar on Urban Traffic Networks: Dynamic Control and Flow Equilibrium*, Capri, Italy, June, 1989.
- Mahmassani, H.S., "Future Directions in Dynamic Travel Analysis," invited closing presentation, *International Conference on Travel Behaviour Analysis*, Kyoto, Japan, July 1989.
- Mahmassani, H.S., "Vectorization of Network Equilibrium Codes; Supercomputer Experiences," invited presentation, *Institute of Transportation, Ministry of Communications*, Taipei, Taiwan, R.O.C., July, 1989.
- Mahmassani, H.S., "Daily Switching of Trip Timing and Routing in Congested Urban Systems," invited presentation, *Fifth World Conference on Transport Research*, Yokohama, Japan, July 1989.
- Mahmassani, H.S., "Effectiveness of In-Vehicle Information Strategies in Traffic Networks: Simulation Experiments," invited presentation, *Institute of Transportation, Ministry of Communications*, Taipei, Taiwan, R.O.C., July, 1989.
- Mahmassani, H.S., "Discussion of Experimental Analysis of Dynamic Route Choice Behaviour," invited discussion, *International Conference on Travel Behaviour Analysis*, Kyoto, Japan, July 1989.
- Mahmassani, H.S., "Dynamic Models of Commuter Behaviour: Experimental Investigation and Application to the Analysis of Planned Disruptions," invited paper, *International Conference on Travel Behaviour Analysis*, Kyoto, Japan, July, 1989.

- Mahmassani, H.S. and Baaj, H., "An AI-Oriented Approach for Transit Network Design," invited presentation, *Operations Research Society of America/The Institute of Management Sciences Joint Fall Meeting (ORSA/TIMS)*, New York, NY, August 1989.
- Mahmassani, H.S., "Supply-Side Analysis Procedures for Decision Support in TMAS Process," invited presentation to the *American Association of State Highway and Transportation Officials (AASHTO) Committee on the Highway System of National Significance*, Austin, Texas, August 1989.
- Mahmassani, H.S. and Tong, C.C., "Temporal Stability of Model Parameters for Trip Timing Decisions: An Econometric Analysis," *68th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1989.
- Mahmassani, H.S., Jayakrishnan, R., and Herman, R., "Microscopic Simulation of Traffic in Networks: Supercomputer Experience," *68th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1989.
- Mahmassani, H.S., Jones, E., Herman, R., and Walton, C.M., "Travel Time Variability in a Commuting Corridor: Implications for Electronic Route Guidance," Conference Program, *First International Conference on Application of Advanced Technologies in Transportation Engineering*, American Society of Civil Engineers, San Diego, CA, 1989.
- Mahmassani, H.S. and Mouskos, K.C., "Computational Experiments with Vectorized Codes for Large-scale Transportation Equilibrium Problems with Multiple User Classes," *Third Society of Industrial and Applied Mathematics (SIAM) Conference on Optimization*, Boston, MA, 1989.
- Mahmassani, H.S., Hanson, S., and Lee-Gosselin, M.E.H., "Operating Envelopes as Heuristics for Understanding Travel Choices," invited presentation, *69th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1989.
- Mahmassani, H.S., "Modelling Congested Traffic Networks Under Real-Time In-vehicle Information," invited presentation, *Operations Research Seminar in the Department of Mechanical Engineering at the University of Texas, Austin, Texas*, October 1989.
- Mahmassani, H.S., Caplice, C.G., and Walton, C.M., "Characteristics of Urban Commuter Behaviour: Switching Propensity and Use of Information," *69th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1990.
- Mahmassani, H.S. and Baaj, M.H., "TRUST: A Lisp Program for the Analysis of Transit Route Configurations," *69th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1990.
- Mahmassani, H.S., "Driver Responses to Traffic Disturbances and Control Strategies: Progress Report and Planned Experiments," *Area III Research Meeting, Texas State Department of Highways and Public Transportation*, Arlington, Texas, February 1990.
- Mahmassani, H.S. and Jayakrishnan, R., "Time-Dependent Assignment in a Congested Traffic Network Under Real-Time Information," invited presentation, *Joint Spring Meeting of the Operations Research Society of America and The Institute of Management Sciences (ORSA/TIMS)*, Las Vegas, Nevada, May 1990.
- Mahmassani, H.S. and Lam, S-H, "Multinomial Probit Estimation: Numerical Experiments on a Supercomputer," *Joint Spring Meeting of the Operations Research Society of America and the Institute of Management Sciences (ORSA/TIMS)*, Las Vegas, Nevada, May, 1990.
- Mahmassani, H.S., "Information and Telecommunications Approaches to Improve Transportation System Performance: Progress Report," *Annual Symposium, Southwest Region University Transportation Center*, College Station, TX, June, 1990.
- Mahmassani, H.S., "A Dynamic Network Simulation-Assignment Model to Evaluate In-Vehicle Real-Time Driver Information Systems," *Department of Civil Engineering, University of Minnesota*, Minneapolis, MN, November 16, 1990.

- Mahmassani, H.S. and Algadhi, S.A.H., "Modelling Crowd Behaviour and Movement: Applications to Makkah Pilgrimage," *Eleventh International Symposium on Transportation and Traffic Theory*, Yokohama, Japan, 1990.
- Mahmassani, H.S. and Jayakrishnan, R., "Dynamic Analysis of Traffic Network Performance Under Real-Time Information," *69th Annual Meeting of the Transportation Research Board*, Washington D.C., December 1990.
- Mahmassani, H.S. and Algadhi, S.A.H., "Simulation of Crowd Behaviour and Movement: Fundamental Relations and Applications," *70th Annual Meeting of the Transportation Research Board*, National Academy of Sciences, Washington, D.C., January 14, 1991.
- Mahmassani, H.S. and Jayakrishnan, R., "Time Dependent Simulation-Assignment of Congested Networks Under Real-Time Information," *70th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 16, 1991.
- Mahmassani, H.S. and Chen, P. "Comparative Assessment of Origin-Based and En-Route Real-Time Information Under Alternative User Behaviour Rules," *70th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 14, 1991.
- Mahmassani, H.S., "A Dynamic Network Simulation-Assignment Model to Evaluate Real-Time Driver Information Systems," *Operations Research Seminar, Department of Mechanical Engineering*, The University of Texas, Austin, Texas, February 6, 1991.
- Mahmassani, H.S., "Computational Experiments with Vectorized Network Assignment Codes on a Supercomputer," the *Joint National Meeting of the Operations Research Society of America (ORSA/TIMS) Session on Supercomputing and Parallel Processing* Nashville, TN, April 1991.
- Mahmassani, H.S., "Time-Dependent Assignment of Traffic Flows in Congested Networks Under Real-Time Information," the *Joint National Meeting of the Operations Research Society of America and the Institute for Management Sciences (ORSA/TIMS)*, Session on Dynamic Route Guidance Systems, Nashville, TN, April 1991.
- Mahmassani, H.S., "Traffic Simulation: Research Needs and IVHS Requirements," presented at the *Engineering Foundation Conference on Traffic Management: Issues and Techniques*, Gold Coast, Florida, April 1991.
- Mahmassani, H.S., "Information and Telecommunications Approaches to Improve Transportation System Performance," presented at *Southwestern University Transportation Center Region 6 Program Review*, Austin, Texas, April 16, 1991.
- Mahmassani, H.S., "Optimal Design of Bus Transit Networks for Suburban Mobility Needs," *Southwestern University Transportation Center Region 6 Program Review*, Austin, Texas, April 16, 1991.
- Mahmassani, H.S., "Advanced Research Program on Transportation Telecommunications Interactions," *U.S. Department of Transportation Project Review*, Center for Transportation Research, Austin, Texas, May 17, 1991.
- Mahmassani, H.S. and Jayakrishnan, R., "Urban Traffic Networks Under Information: A Dynamic Traffic Simulation-Assignment Model," *International Symposium of Automotive Technology and Automation (ISATA) International Conference and Exhibition on Intelligent Vehicle/Highway Systems*, Florence, Italy, May 1991.
- Mahmassani, H.S. and Lam, S-H, "Multinomial Probit Model Estimation: Computational Procedures and Applications," *6th International Conference of the Association for Travel Behaviour*, Quebec, Canada, May 21, 1991.
- Mahmassani, H.S. and Tong, C.C., "Alternative Model Structures for the Day-to-Day Dynamics of Departure Time and Route Choice Decisions in Commuting Systems," *The 6th International Conference of the Association for Travel Behaviour*, Quebec, Canada, May 1991.

- Mahmassani, H.S., "Telecommuting," *11th Annual Center for Transportation Research Symposium*, Balconies Research Center, Austin, TX, July 8, 1991.
- Mahmassani, H.S. and Baaj, M.H., "A LISP-Implemented Route Generation Algorithm for the Design Transit Routes," *The Triennial Symposium on Transportation Analysis (TRISTAN I)*, Montreal, Québec, Canada, June 1991.
- Mahmassani, H.S. and Peeta, S., "System Optimal Route Guidance Information: Formulations, Algorithms and Some Issues," *Institute for Management Science and the Operation Research Society of America Conference*, Anaheim, CA, 1991.
- Mahmassani, H.S. and Peeta, S., "Dynamic Assignment of Route Guidance Decisions," *Operations Research Society of America and the Institute for Management Sciences (TIMS/ORSA) Joint National Meeting*, Orlando, FL, 1991.
- Mahmassani, H.S. and Chen, P., "Reliability of Real-Time Information Systems for Route Choice Decisions in a Congested Traffic Network: Some Simulation Experiments," *Vehicle Navigation & Information Systems Institute for Electrical and Electronic Engineers (IEEE) International Conference and Exhibit*, Dearborn, MI, 1991.
- Mahmassani, H.S. and Jayakrishnan, R., "Dynamic Simulation-Assignment and Path Processing to Evaluate Route Information/Guidance Strategies," *Joint Fall Annual Meeting of the Operations Research Society of America and the Institute of Management Sciences (ORSA/TIMS)*, Anaheim, CA, 1991.
- Mahmassani, H.S., Peeta, S., Rothery, R., and Herman, R., "Effectiveness of Real-Time Information Strategies in Situations of Non-Recurrent Congestion," the *American Society of Civil Engineers Conference on Advanced Technologies in Transportation Engineering*, Minneapolis, MN, August 1991.
- Mahmassani, H.S. and Jayakrishnan, R., "Dynamic Traffic Network Simulation-Assignment Modelling for Advanced Driver Information Systems," *Vehicle Navigation and Information Systems Institute for Electrical and Electronic Engineers (IEEE), International Conference & Exhibit*, Dearborn, MI, 1991.
- Mahmassani, H.S., "Dynamic Network Assignment and Traffic Simulation Modeling for ATIS/ATMS," *Intelligent Vehicle Highway Systems (IVHS) Speaker Series*, The University of Michigan, Ann Arbor, MI, 1991.
- Mahmassani, H.S., Hatcher, G.S., and Caplice, C., "Daily Variation of Trip Chaining, Scheduling, and Path Selection Behaviour of Work Commuters," *6th International Association for Travel Behaviour (IATB) Conference*, Quebec, Canada, 1991.
- Mahmassani, H.S., "Driver Responses to Traffic Disturbances and Control Strategies," *Texas Department of Transportation-Area III Research Meeting*, Nacogdoches, TX, 1992.
- Mahmassani, H.S., "Telecommunications - Transportation - Energy Interactions," *Public Transit*, Houston, TX, 1992.
- Mahmassani, H.S., "Dynamic Network Traffic Assignment and Simulation Modelling for ATIS/ATMS," *Intelligent Vehicle Highway Systems (IVHS) Seminar Series*, College of Engineering, The University of Illinois, Urbana-Champaign, IL, 1992.
- Mahmassani, H.S. and Hatcher, G., "Daily Variability of Route and Trip Scheduling Decisions for the Evening Commute," *71st Annual Meeting of the Transportation Research Board*, Washington, D.C., 1992.
- Mahmassani, H.S. and Hatcher, G., "Day-to-Day Variability of Commuter Behaviour: Analysis of Path Selection, Trip Timing and Trip Chaining Using Two-Week Trip Diaries," *6th World Conference on Transport Research*, Lyon, France, 1992.
- Mahmassani, H.S. and Jayakrishnan, R., "A New Dynamic Network Assignment-Simulation Model for ATIS/ATMS Application," *71 Annual Meeting Transportation Research Board*, Washington, D.C., 1992.

- Mahmassani, H.S. and Lam, S-H, "A New Procedure for Multinomial Probit Estimation in a Parallel Computing Environment," *6th World Conference on Transport Research*, Lyon, France, 1992.
- Mahmassani, H.S. and Chen, P., "Reliability of Real-Time Information," *71st Annual Meeting of the Transportation Research Board*, Washington, D.C., 1992.
- Mahmassani, H.S. and Peeta, S., "System Optimal Dynamic Assignment for Electronic Route Guidance in a Congested Traffic Network," *Capri Seminar on Urban Traffic Networks*, Capri, Italy, 1992.
- Mahmassani, H.S. and Peeta, S., "System Optimal Dynamic Traffic Assignment In Congested Networks With In-Vehicle Real-Time Information," *6th World Conference on Transport Research*, Lyon, France, 1992.
- Mahmassani, H.S., "Transportation Infrastructure Systems Research at the University of Texas: Evolving Concepts and Technological Innovations," *First Infrastructure Lecture Series*, Civil Engineering Infrastructure Research Center, The University of Puerto Rico, Mayaguez, PR, 1992.
- Mahmassani, H.S., "Dynamic Network Traffic Assignment: Some Comments," Panel discussion at *Transportation Research Board 71st Annual Meeting*, Washington, D.C., 1992.
- Mahmassani, H.S., "DYNASMART," *IVHS Dynamic Traffic Assignment and Simulation Workshop*, McLean, VA, 1992.
- Mahmassani, H.S., Hu, T-Y, and Jayakrishnan, R., "Dynamic Traffic Assignment and Simulation for Advanced Network Informatics," *Capri Seminar on Urban Traffic Networks*, Capri, Italy, 1992.
- Mahmassani, H.S., "Modelling Incident Delays and User Responses in Networks with Advanced Driver Information Systems," *25th International Symposium of Automotive Technology and Automation (ISATA) Silver Jubilee Conference*, Florence, Italy, 1992.
- Mahmassani, H.S., "Modelling Users' Real-Time and Day-To-Day Responses to In -Vehicle Information in Congested Networks," the *6th World Conference on Transport Research*, Lyon, France, 1992.
- Mahmassani, H.S., "The Advanced Institute for Transportation Infrastructure Engineering an Management," *U.S. DOT Southwest Region University Transportation Center Symposium*, College Station, TX, 1992.
- Mahmassani, H.S. and Tong, C-C, "A Dynamic Model of Departure Time and Route Switching Decisions in a Congested Network: Application of Multinomial Probit," *6th World Conference on Transport Research*, Lyon, France, 1992.
- Mahmassani, H.S., Yen, J-R, Sullivan, M., Herman, R., and Hart, H., "Employee Participation and Employer Adoption of Telecommuting Programs," *71st Annual Meeting Transportation Research Board*, Washington, D.C., 1992.
- Mahmassani, H.S. and Mouskos, K. "A TABU-based Heuristic Search Strategy for the Discrete Transportation Equilibrium Network Design Problem," *Journées de l'Optimisation (1992) Optimization Days*, Montréal, Canada, 1992.
- Mahmassani, H.S., Taylor, D., and Euritt, M., "Economic Evaluation of CNG Fleet Conversion and Operation," *Transportation Research Board 71st Annual Meeting*, Washington, D.C., 1992.
- Mahmassani, H.S., "Features of Travel Demand Modeling Framework," *National Research Council-Transportation Modeling Needs Research Task Force Meeting*, Washington, D.C., 1992.
- Mahmassani, H.S., Ziliaskopoulos, A., and Hu, T-Y, "Implementation and Testing of a K-Shortest Path Algorithm in a Vector and Parallel Processing Environment," *Operations Research Society of America/ Computer Science Technical Sections Conference*, Williamsburg, VA, 1992.
- Mahmassani, H.S., "Dynamic System Optimal Traffic Assignment In Congested Networks for IVHS Applications," *Operations Research Seminar*, The University of Texas, Austin, Texas, September 1992.

- Mahmassani, H.S., "Day-to-Day Variability of Urban Commuter Behaviour," *VII Pan-American Congress on Traffic and Transportation Engineering*, Caracas, Venezuela, September 1992.
- Mahmassani, H.S., "Longitudinal Surveys for Modelling Day-to-Day Commuter Decisions," *First U.S. Conference on Panels for Transportation Planning*, Lake Arrowhead, CA, October 25, 1992.
- Mahmassani, H.S., "System Optimal Dynamic Traffic Assignment for ATIS/ATMS," *University of California*, Irvine, CA., October 27, 1992.
- Mahmassani, H.S. and Hu, T-Y, "Dynamic Simulation Assignment Model for Real-Time Network Control," *Operations Research Society of America and The Institute of Management Sciences (ORSA/TIMS) Joint National Meeting*, San Francisco, CA, November 1992.
- Mahmassani, H.S. and Ziliaskopoulos, A., "Design and Implementation of a Shortest Path Algorithm with Time-Dependent Arc Costs," *5th Advanced Technology Conference*, U.S. Postal Service, Washington D.C., 1992.
- Mahmassani, H.S. and Peeta, S., "Dynamic Assignment for Route Guidance Decisions," *Regional Science Association International Thirty-Ninth North American Meetings*, Chicago, IL, November 1992.
- Mahmassani, H.S. and Chen, P. S-T, "A Dynamic Interactive Simulator for the Study of Commuter Behaviour Under Real-Time Information Supply Strategies," *72nd Annual Transportation Research Board Meeting*, Washington, D.C., January 1993.
- Mahmassani, H.S. and Ziliaskopoulos, A., "A Time-Dependent Shortest Path Algorithm for Real-Time Intelligent Vehicle Systems Applications," *72nd Annual Transportation Research Board Meeting*, Washington, D.C., January 1993.
- Mahmassani, H.S. and Peeta, S., "Network Performance Under System Optimal and User Equilibrium Dynamic Assignments: Implications for ATIS," *72nd Annual Transportation Research Board*, Washington, D.C., January 1993.
- Mahmassani, H.S., Euritt, M.A., and Taylor, D.B. "Cost Effectiveness Analysis of Texas DOT CNG Fleet Conversion," *72nd Annual Meeting of the Transportation Research Board*, Washington, D.C., January 1993.
- Mahmassani, H.S., Joseph, T., and Jou, R-C, "A Survey Approach for the Study of Urban Commuter Choice Dynamics," *72nd Annual Meeting of the Transportation Research Board*, Washington, D.C., January 1993.
- Mahmassani, H.S., Sullivan, M., and Yen, J-R, "A Choice Model of Employee Participation in Telecommuting Under A Cost-Neutral Scenario," *72nd Annual Meeting of the Transportation Research Board*, Washington, D.C., January 1993.
- Mahmassani, H.S., "Simulation des Réseaux de Circulation Instrumentés," invited presentation, *Canadian Intelligent Vehicle Highways Systems Spring 1993 Workshop, Systèmes (Intelligents Véhicules-Routes (SIVR) Atelier De Printemps 1993 Sur Les SIVR Au Canada)*, Montreal, Canada, April 1993.
- Mahmassani, H.S. and Peeta, S., "Comparative Assessment of Time-Dependent Optimal and User Equilibrium Network Flow Patterns: Implications for Route Guidance," *The Institute of Management Systems/Operations Research Society of America 35th Joint National Meeting Transportation and Logistics*, Chicago, IL, May 1993.
- Mahmassani, H.S., "Recent Developments in Dynamic Assignment for ADIS," *ATMS Advisory Committee Meeting*, Langley, VA, June 7, 1993.
- Mahmassani, H.S., "Transportation Telecommunications Interactions," *Summer Symposium, the University of Texas, Austin, TX*, August 1993.

- Mahmassani, H.S. and Chen, P., "Route and Departure Time Adjustment Behaviour and Evolution Under ATIS," *Operations Research Society of America and the Institute for Management Sciences (ORSA/TIMS) Joint National Meeting*, Phoenix, AZ, 1993.
- Mahmassani, H.S. and Chen, P., "Dynamics of Commuter Behaviour Under ATIS," *The Institute of Management Systems/Operations Research Society of America Joint National Meeting (TIMS/ORSA)*, Chicago, IL, May 1993.
- Mahmassani, H.S., "Dynamic Network Assignment with Multiple User Information Availability Classes for ATIS/ATMS Applications," the *Operations Research Society of America and the Institute for Management Sciences (ORSA/TIMS) Joint National Meeting*, Chicago, IL, 1993.
- Mahmassani, H.S., "Parallel Computational Procedures for Maximum Likelihood Estimation of Multinomial Probit Model," *The American Statistical Society*, Austin, Texas, 1993.
- Mahmassani, H.S., "Intelligent Vehicle Transportation Systems at the University of Texas," *Second Annual Infrastructure Conference, Civil Engineering Infrastructure Research Center*, Mayaguez, Puerto Rico, April 21-23, 1993.
- Mahmassani, H.S. and Dickerson, B.H., "The Undergraduate Summer Internship in Transportation: An Effective Graduate Student Recruiting Tool," 1993 *American Association of Electrical Engineers (ASEE) Gulf-Southwest Section Annual Meeting*, Austin, TX, 1993.
- Mahmassani, H.S., Peeta, S., Hu, T-Y, and Rothery, R., "Effect of Real-Time Information on Network Performance Under Alternative Dynamic Assignment Rules," *The Planning and Transport Research and Computation International Association (PTRC) European Transport, Highways and planning Summer Annual Meeting*, Manchester, United Kingdom, September 1993.
- Mahmassani, H.S. and Chen, P., "A Dynamic Travel Simulator for Modelling Tripmaker Behaviour under ATIS," *Workshop on User Responses to ATIS*, Massachusetts Institute of Technology, Cambridge, MA, October 1993.
- Mahmassani, H.S., Peeta, S., Hu, T-Y, and Ziliaskopoulos, A., "Algorithm for Dynamic Route Guidance in Congested Networks with Multiple User Information Availability Groups," *26th International Symposium of Automotive Technology and Automation (ISATA) Conference*, Aachen, Germany, 1993.
- Mahmassani, H.S. and Jou, R-C, "Comparability and Transferability of Commuter Behaviour Characteristics Between Cities: Departure Time and Route Switching Decisions," *73rd Annual Meeting of the Transportation Research Board*, 1993.
- Mahmassani, H.S. and Peeta, S., "Dynamic Network Assignment with Multiple User Information Availability Classes," *Regional Science Association International 40th North American Meeting*, Houston, TX, November 1993.
- Mahmassani, H.S. and Peeta, S., "Real-Time Dynamic Assignment for Route Guidance," *Operations Research Society of America/The Institute of Management Systems (ORSA/TIMS) Joint National Meeting*, Phoenix, AZ, November 1993.
- Mahmassani, H.S., Peeta, S., Hu, T-Y, and Ziliaskopoulos, A., "Route Guidance and Network Performance with Multiple User Information Availability Classes," *73rd Annual Transportation Research Board Meeting*, Washington, D.C., January 1993.
- Mahmassani, H.S. and Ziliaskopoulos, A., "Design and Implementation of a Shortest Path Algorithm with General Time-Dependent Arc Costs," *The Institute of Management Sciences/Operations Research Society of America (TIMS/ORSA) 35th Joint National Meeting*, Chicago, IL, May 16-19, 1993.
- Mahmassani, H.S., Peeta, S., and Ziliaskopoulos, A., "Dynamic Network Assignment With Multiple User Information Availability Classes for ATIS/ATMS Applications," *Pacific Rim Trans Tech Conference*, Seattle, Washington, July 25-28, 1993.
- Mahmassani, H.S., "Use of Congestion Pricing for Reducing Urban Congestion and as a Revenue Source," *Texas Department of Transportation Area I Meeting*, Odessa, TX, September 1993.

- Mahmassani, H.S. and Ziliaskopoulos, A., "Path Processing Algorithms for Electronic Route Guidance Systems," *Associazione Italiana de Ricerca Operativa aGironate di Lavoro (AIRO' 93)*, Capri, Italy, September 1993.
- Mahmassani, H.S., "Advanced Transportation Mobility Systems: Concepts for the 21st Century," *Engineering Foundation Advisory Council*, Balcones Research Center, Austin, TX, October 1993.
- Mahmassani, H.S., "Opportunities for Minority Students Through the Advanced Institute for Transportation Infrastructure Engineering", *Management Boss' 93 Conference*, Austin, TX, September 1993.
- Mahmassani, H.S. and Ziliaskopoulos, A., "A Least Time and Least Cost Path Algorithms on Time Dependent Networks with Non-FIFO Arcs," *Operations Research Society of America and the Institute for Management Sciences (ORSA/TIMS) Joint National Meeting*, Detroit, MI, October 1994.
- Mahmassani, H.S., Peeta, S., and Hu, T-Y, "Multiple User Classes Quasi-Real Time Traffic Assignment for On-Line ATIS/ATMS Applications," *Operations Research Society of America and the Institute for Management Sciences (ORSA/TIMS) Joint National Meeting*, Detroit, MI, October 1994.
- Mahmassani, H.S., "Overview of IVHS Research on Dynamic Assignment and Ongoing IVHS Efforts in Europe," *Texas Department of Transportation Technical Committee for Traffic Management Systems*, San Antonio, TX, September 1994.
- Mahmassani, H.S. and Regan, A., "Improving Efficiency of Carrier Fleet Operations Under Real-Time Information," *1994 First World Congress on Applications of Transport Telematics*, Paris, France, December 1994.
- Mahmassani, H.S. and Chen, P., "Experiments with an Interactive Simulator to Study Tripmaker Decisions in Response to Real-Time Information," *International Association for Travel Behaviour Research (IATBR-94)* Santiago, Chile, June 1994.
- Mahmassani, H.S. and Jou, R-C, "Day to Day Dynamics of Commuter Travel Behaviour in an Urban Environment - Departure Time and Route Decisions," *International Association for Travel Behaviour Research (IATBR-94)*, Santiago, Chile, June 1994.
- Mahmassani, H.S., "Analytic Methods for Transportation Management Systems," *73rd Annual Transportation Research Board Meeting*, Washington, D.C., January 1994.
- Mahmassani, H.S. and Hu, T-Y, "Network Dynamics Under Advanced Information Systems and Responsive Traffic Control," *European Association of Operations Research Societies (EURO) XIII Conference*, Glasgow, Scotland, July 1994.
- Mahmassani, H.S. and Peeta, S., "Dynamic Assignment Simulation Procedures for ATIS/ATMS: Project Accomplishments," *Dynamic Traffic Assignment (DTA) Workshop*, Chantilly, VA.
- Mahmassani, H.S., Peeta, S., and Hu, T-Y, "Real Time Assignment and Route Guidance in Congested Networks with Multiple User Information Availability Classes," *(TRISTAN II) TRIennial Symposium on Transportation ANalysis*, Capri, Italy, June 1994.
- Mahmassani, H.S., Peeta, S., Hu, T-Y, and Ziliaskopoulos, A. "A Simulation-Based Algorithm for Dynamic Network Assignment with Multiple User Classes Under Real-Time Information," *Canadian Operations Research Society (CORS) 1994 and Optimization Days Conference*, Montreal, Canada, June 1994.
- Mahmassani, H.S., Peeta, S., Hu, T-Y, and Ziliaskopoulos, A., "Dynamic Network Assignment of Multiple User Route Guidance Applications," *The Institute of Management Sciences/Operations Research Society of America (TIMS/ORSA) Joint National Meeting*, Boston, MA, April 1994.
- Mahmassani, H.S. and Shih, M-C, "A Planning and Design Model for Transit Route Networks with Coordinated Operations," *TRIennial Symposium on Transportation ANalysis, (TRISTAN II)*, Capri, Italy, June 1994.

- Mahmassani, H.S. and Shih, M-C, "Design of Transit Route Networks With Coordinated Operations," *European Association of Operations Research Societies (EURO) XIII Conference*, Glasgow, Scotland, July 1994.
- Mahmassani, H.S., Yen, J-R, and Herman, R., "Telecommuting: Background, Empirical Experiences and Research Approach," *Traffic Demand Management Seminar 1994*, Taiwan, R.O.C., April 1994.
- Mahmassani, H.S., Hu, T-Y, and Peeta, S., "Microsimulation-Based Procedures for Dynamic Network Traffic Assignment," *The Planning and Transport Research and Computation International Association (PTRC) 22nd European Transport Forum*, University of Warwick, England, September 1994.
- Mahmassani, H.S., Miller, E., and Ziliaskopoulos, A., "Path Search Techniques for Transportation Networks with Time-Dependent Stochastic Arc Costs," *1994 Institute for Electrical and Electronic Engineers (IEEE) International Conference on Systems, Man, and Cybernetics*, San Antonio, TX, October 1994.
- Mahmassani, H.S., Peeta, S., Hu, T-Y, and Ziliaskopoulos, A., "Experiments with Dynamic Network Assignment of Multiple User Information Classes for ATIS/ATMS Applications," *The Institute of Management Sciences/Operations Research Society of America (TIMS/ORSA) Joint National Meeting*, Boston, MA, April 1994.
- Mahmassani, H.S., Peeta, S., Hu, T-Y, and Ziliaskopoulos, A., "Dynamic Network Assignment: A Microsimulation-Based Algorithm and Applications to Real-Time Information Systems," *International Association for Travel Behaviour Research (IATBR'94)*, Santiago, Chile, June 1994.
- Mahmassani, H.S., Yen, J-R, and Herman, R., "Employee Attitudes and Stated Preferences Towards Telecommuting: An Exploratory Analysis," *73rd Annual Meeting of the Transportation Research Board*, Washington D.C., January 1994.
- Mahmassani, H.S. and Shih, M-C, "A Vehicle Sizing Model for Bus Transit Systems," *73rd Annual Meeting of the Transportation Research Board*, Washington D.C., January 1994.
- Mahmassani, H.S., Yen, J-R, and Herman, R., "A Model of Employee Participation in Telecommuting Programs Based on Stated Preference Data," *International Association for Travel Behaviour Research (IATBR-94)*, Santiago, Chile, June 1994.
- Mahmassani, H.S. and Hawas, Y., "A Local Control and Search Strategy for Vehicle Routing in a Network Under Limited Real-Time Information," *73rd Annual Meeting of the Transportation Research Board*, Washington D.C., January 1994.
- Mahmassani, H.S., "Telecommuting Down the Information Superhighway: Transportation Infrastructure Implications," *III Annual Infrastructure Conference*, Civil Infrastructure Research Center, The University of Puerto Rico, Mayaguez, Puerto Rico.
- Mahmassani, H.S., Peeta, S., Hu, T-Y, and Ziliaskopoulos, A., "Route Guidance and Network Performance with Multiple User Information Availability Classes," *73rd Annual Meeting of the Transportation Research Board*, Washington D.C., January 1994.
- Mahmassani, H.S. and Yen, J-R, "Telecommuting Adoption: Conceptual Framework and Model Estimation," *74th Annual Transportation Research Board Meeting*, Washington, D.C., January 1995.
- Mahmassani, H.S., "Developments and Needs in Dynamic Assignment," *74th Annual Transportation Research Board Meeting*, Washington, D.C., January 1995.
- Mahmassani, H.S. and Hu, T-Y, "Evolution of Network Flows Under Real-Time Information: A Day-to-Day Dynamic Simulation-Assignment Framework," *74th Annual Transportation Research Board Meeting*, Washington, D.C., January 1995.

- Mahmassani, H.S., Regan, A., and Jaillet, P., "Improving the Efficiency of Commercial Vehicle Operations Using Real-Time Information: Potential Uses and Assignment Strategies," *74th Annual Transportation Research Board Meeting*, Washington, D.C., January 1995.
- Mahmassani, H.S. and Hawas, Y., "Real-Time Network Route Guidance Using Local Search Procedures," *74th Annual Transportation Research Board Meeting*, Washington, D. C., January 1995.
- Mahmassani, H.S., "Dynamic Network Traffic Assignment with Multiple User Classes under Real-Time Information," *Operations Research Seminar, University of Texas*, Austin, TX, February 1995.
- Mahmassani, H.S. and Hu, T-Y, "Evaluation of ATMS/ATIS Benefits in a Day-to-day Framework," *Intelligent Transportation Systems (ITS) Fifth Annual Meeting*, Washington, D.C., March 1995.
- Mahmassani, H.S. and Hawas, Y., "Real-Time Local Control Strategies for Vehicular Routing in a Congested Network," *Institute for Operations Research and the Management Sciences (INFORMS) Los Angeles National Meeting*, Los Angeles, CA, April 1995.
- Mahmassani, H.S. and Regan, A., "Dynamic Vehicle Allocation Under Real-Time Information," *Institute for Operations Research and the Management Sciences (INFORMS) Los Angeles National Meeting*, Los Angeles, CA, April 1995.
- Mahmassani, H.S., "Detection and Mitigation of Roadway Hazards for Bicyclists," *Area III Research Meeting Traffic Operations, Geometric Design, and Right-of-Way*, Nacogdoches, TX, April 1995.
- Mahmassani, H.S., "Recent Developments in Dynamic Traffic Assignment Methods for ATMS/ATIS," *Intelligent Transportation Systems (ITS) Davis, Spring 1995 Seminar Series*, University of California-Davis, Davis, CA, April 1995.
- Mahmassani, H.S., "Recent Advances in Dynamic Traffic Assignment," *Ohio State University Seminar Series*, Columbus, OH, May 1995.
- Mahmassani, H.S., Regan, A., and Jaillet, P., "Demand Responsive Fleet Management: Simulation Insights," *Mobility Modeling and Simulation Conference*, AFIT/ENS Wright-Patterson Airforce Institute of Technology, Dayton, OH, May 1995.
- Mahmassani, H.S., "Research and Its Implementation: Some Issues Towards Intelligent Transportation Systems Deployment," *4th International Conference on Applications of Advanced Technology in Transportation Engineering*, Capri, Italy, June 1995.
- Mahmassani, H.S., Regan, A., and Jaillet, P., "Dynamic Vehicle Allocation Under Real-Time Information: Operational Considerations and Potential Efficiencies," *4th International Conference on Applications of Advanced Technology in Transportation Engineering*, Capri, Italy, June 1995.
- Mahmassani, H.S., Regan, A., and Jaillet, P., "Dynamic Fleet Management for Trucking Operations," *Institute for Operations Research and the Management Sciences (INFORMS) New Orleans Fall 1995 Conference*, October 29, 1995.
- Mahmassani, H.S., "Implementation and Testing of A Dynamic Traffic Assignment Algorithm for Route Guidance Applications," *Institute for Operations Research and the Management Sciences (INFORMS) New Orleans Fall 1995 Conference*, October 30, 1995.
- Mahmassani, H.S. and Hawas, Y., "A Decentralized Approach for Dynamic Traffic Routing and Control in a Congested Network," *Institute for Operations Research and the Management Sciences (INFORMS) New Orleans Fall 1995 Conference*, October 31, 1995.
- Mahmassani, H.S., Miller, E., and Ziliaskopoulos, A., "Determining Optimal Paths in Time-Dependent Stochastic Transportation Networks," *Institute for Operations Research and the Management Sciences (INFORMS) New Orleans Fall 1995 Conference*, October 31, 1995.
- Mahmassani, H.S. and Hu, T-Y, "Evolution of Network Flows Under Real-Time Information and Responsive Signal Control," *75th Annual Transportation Research Board Meeting*, Washington, D.C., January 8, 1996.

- Mahmassani, H.S. and Yen, J-R, "Modelling the Employer Adoption Process," *75th Annual Transportation Research Board Meeting*, Washington D.C., January 9, 1996.
- Mahmassani, H.S., "Towards Real-Time Dynamic Network Assignment Models to Support ATIS/ATMS Operations," *University of Montreal, Centre de Recherche sur les Transports in Montreal, Canada Seminar Series Advances in Dynamic Traffic Assignment in ATIS/ATMS*, February 9, 1996.
- Mahmassani, H.S., "Dynamic Traffic Assignment for ATMS/ATMS," *Transportation Issues Seminar*, Austin, Texas, February 19, 1996.
- Mahmassani, H.S., "Dynamic Traffic Assignment for Route Guidance: Approaches and Some Experimental Results," *MIT Center for Transportation Studies Affiliates Seminar on Advanced Projects in Intelligent Transportation Systems*, presented in Traffic Prediction and Optimization Algorithms session, April 10, 1996.
- Mahmassani, H.S., "Towards Deployment of Advanced Technologies for Intelligent Transportation Systems Operations," *IV Annual Infrastructure Conference*, Civil Infrastructure Research Center, University of Puerto Rico, Mayaguez, April 26, 1996.
- Mahmassani, H.S., Regan, A., and Jaillet, P., "Fleet Management Strategies for Trucking Operations Under Real-Time Information," *Institute for Operations Research and the Management Sciences (INFORMS) Washington, D.C. Spring 1996 Conference*, May 5, 1996.
- Mahmassani, H.S. and Hawas, Y., "Effectiveness and Robustness of Distributed and Centralized Network Route Control Systems," *Institute for Operations Research and the Management Sciences (INFORMS) Washington, D.C. Spring 1996 Conference*, May 6, 1996.
- Mahmassani, H.S., "Solving Time-Dependent Assignment Problems with Multiple User Classes: A Simulation-Based Approach," *Journées de l'optimisation 96 - Optimization Days 96 Conference*, Université de Montréal, Montreal, Canada, May 13, 1996.
- Mahmassani, H.S. and Miller-Hooks, E., "Efficient Algorithm for Determining the Least Time Path in Stochastic, Time-Dependent Networks," *Journées de l'optimisation 96 - Optimization Days 96 Conference*, Université de Montréal, Montreal, Canada, May 15, 1996.
- Mahmassani, H.S., Regan, A.C., and Jaillet, P., "Trucking Operations Under Real-Time Information: Insights and Applications," *International Federation of Operational Research Societies 14th Triennial Conference, (IFORS 96)* Vancouver, British Columbia, Canada, July 9, 1996.
- Mahmassani, H.S., "Comparative Assessment of Alternative Real-Time Dynamic Assignment Strategies," *International Federation of Operational Research Societies 14th Triennial Conference (IFORS 96)*, Vancouver, British Columbia, Canada, July 11, 1996.
- Mahmassani, H.S. and Jou, R-C, "Bounded Rationality in Commuter Decision Dynamics: Incorporating Trip Chaining in Departure Time and Route Switching Decisions," *Conference on Theoretical Foundations of Travel Choice Modelling*, Stockholm, Sweden, August 9, 1996.
- Hu, Y-Y and Mahmassani, H.S., "Individual Behaviour Based Traffic Simulation for Intelligent Transport Systems," *4th Meeting of the EURO Working Group on Transportation Dynamic Route Guidance Workshop*, University of Newcastle, England, September 1996.
- Mahmassani, H.S. and Liu, H-Y, "Day-to-Day Dynamic of Commuter Route Choice Behaviour Under Real-Time Information," *PTRC 24th European Transport Forum*, Brunel University, London, September 5, 1996.
- Mahmassani, H.S., "Dynamic Traffic Assignment for Route Guidance: Simulation Experiments," *Equilibrium and Advanced Transportation Modelling Colloquium*, Montreal, Canada, October 1996.
- Mahmassani, H.S. and Liu, H-Y, "Motorist Route Choice Decisions Under Real-Time Information," *(INFORMS) Institute for Operations Research and the Management Sciences Atlanta Fall 1996 International Business Logistics Conference*, Atlanta, GA, November 4, 1996.

- Mahmassani, H.S., Lin, H-H, and Hawas, Y., "Experiments With a Rolling Horizon Dynamic Route Guidance Algorithm: Robustness Under Stochastic Demands," *(INFORMS) Institute for Operations Research and the Management Sciences Atlanta Fall 1996 International Business Logistics Conference*, Atlanta, GA, November 4, 1996.
- Mahmassani, H.S., "Experiments with Real-Time Dynamic Traffic Assignment Strategies in Congested Networks," *43rd North American Meeting of the Regional Science Association International*, Arlington, VA, November 1996.
- Regan, A.C., Mahmassani, H.S., and Jaillet, P., "Carrier Fleet Operations Under Real-Time Information: Insights and Applications" *(INFORMS) Institute for Operations Research and the Management Sciences Atlanta Fall 1996 International Business Logistics Conference*, Atlanta, GA, November 5, 1996.
- Vora, V.P. and Mahmassani, H.S., "Modeling Telecommuting Adoption by Managers in a Public Agency," *76th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 1997.
- Mahmassani, H.S. and Hawas, Y., "Data Requirements for Development, Calibration of Dynamic Traffic Models and Algorithms for ATMS/ATIS," *76th Annual Meeting of the Transportation Research Board*, January 1997.
- Abdelfatal, A. and Mahmassani, H.S., "Dynamic Route Guidance and Signal Control in a Congested Network: Formulation and Simulation-Based Algorithms," *76th Annual Transportation Research Board Meeting*, Washington D.C., January 1997.
- Mahmassani, H.S., Miller-Hooks, E., and Bowler, L., "Transportation Routing Analysis," *Nuclear Group Quarterly Meeting of the Amarillo National Resource Center for Plutonium*, Amarillo, Texas, March 1997.
- Mahmassani, H.S., "Dynamic Traffic Simulation I, II, & III," invited lecturer at *Operations Research and Decision Aid Methodologies in Traffic and Transportation Management (NATO/ASI) National Association Transportation Operations/Advanced Studies Institute Seminar* sponsored in collaboration with (IFIT) International Institute for Education in Transportation, Balatonfured, Hungary, March 1997.
- Mahmassani, H.S., "Overview of DTA Evaluation System: TReL Information Dynamics, Inc." presented at the *Federal Highway Administration Meeting*, Washington, D.C., March 31, 1997.
- Abdelfatal, A. and Mahmassani, H.S., "Signal Control and Route Guidance in a Congested Traffic Network Under Time-Varying Demands: A Formulation and Solution Algorithm," *(INFORMS) Institute for Operations Research and the Management Sciences San Diego Spring 1997 Conference*, San Diego, CA, May 1997.
- Regan, A.C. and Mahmassani, H.S., "Carrier Fleet Operations Under Real-Time Information: Dynamic Assignment and the Effect of Congestion," *(INFORMS) Institute for Operations Research and the Management Sciences San Diego Spring 1997 Conference*, San Diego, CA, May 6, 1997.
- Miller-Hooks, E. and Mahmassani, H.S., "Path Comparisons of a Priori and Time-Adaptive Route Selection in Stochastic Time-Dependent Networks" *(INFORMS) Institute for Operations Research and the Management Sciences San Diego Spring 1997 Conference*, San Diego, CA, May 4, 1997.
- Hawas, Y. and Mahmassani, H.S., "Real-Time Dynamic Guidance: Robustness of Predictive and Reactive Strategies Under Stochastic Demands," *(INFORMS) Institute for Operations Research and the Management Sciences San Diego Spring 1997 Conference*, San Diego, CA, May 4, 1997.
- Mahmassani, H.S., "System Operations Considerations in Planning Transportation Infrastructure Investments," *Repair and Rehabilitation of Civil Engineering Infrastructure Systems Conference*, Beirut, Lebanon, June 1997.
- Mahmassani, H.S., "Phasing-Out Lead Fuel in Lebanon: Proposed Strategies," invited speaker at *Ministry of Environment, Republic of Lebanon*, Beirut, Lebanon, August 7, 1997.

- Jou, R.C. and Mahmassani, H.S., "Comparative Analysis of Day-To-Day Chaining Behaviour of Urban Commuters in Two Cities," *76th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 14, 1997.
- Liu, Y-H and Mahmassani, H.S., "Dynamic Aspects of Departure Time and Route Time and Route Decision Behaviour Under Advanced Traveler Information Systems (ATIS): Modelling Framework and Experimental Results," *76th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 13, 1997.
- Mahmassani, H.S., and Hawas, Y., "Real-Time Dynamic Traffic Assignment for Route Guidance: Comparison of Global Predictive vs. Local Reactive Strategies Under Stochastic Demands," *8th IFAC Symposium on Transportation Systems*, Chania, Greece, June 1997.
- Mahmassani, H.S., "Development in Real-Time Network Traffic Assignment for Advanced System Operations," invited lecture at the University of California, Irvine, CA., May 2, 1997.
- Mahmassani, H.S., "Development of Real-Time Traffic Assignment Systems: DYNASMART - X, invited presentation at special panel sessions titled Dynamic Traffic Assignment II and II of the (INFORMS) *Institute for Operations Research and the Management Sciences San Diego Spring 1997 Conference*, San Diego, CA, May 4th and 5th, 1997.
- Mahmassani, H.S., "Transportation and Routing Strategies for Nuclear Shipments," presented at the *Nuclear Group Quarterly Meeting of the Amarillo National Resource Center for Plutonium*, Amarillo, Texas, November 20, 1997.
- Mahmassani, H.S., "Transportation Infrastructure for Strategic Mobility: Limits and Opportunities," invited keynote presentation, *International Conference on Repair and Rehabilitation of Civil Engineering Infrastructure Systems*, Beirut, Lebanon, June 1997.
- Shih, M-C., Mahmassani, H.S., and Baaj, H.M. "A Trip Assignment Model for Timed Transfer Transit Systems," presented at the *76th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 13, 1997
- Mahmassani, H.S. and Liu, Y-H, "Models of User Pre-Trip and En-Route Switching Decisions in Response to Real-Time Information," *8th IFAC Symposium on Transportation Systems*, Chania, Greece, June 1997.
- Mahmassani, H.S., "A Distributed Simulation Architecture for Intelligent Transportation Systems Evaluation and Operation," invited keynote speaker, *The Second LAAS International Conference on Computer Simulation*, Beirut, Lebanon, September 1997.
- Liu, Y-H and Mahmassani, H.S., "Global Maximum Likelihood Estimation Procedure of Multinomial Probit (MNP) Model Parameters," *International Association Travel Behaviour Research (IATBR) 1997 Conference*, Austin, Texas, September 21-25, 1997.
- Mahmassani, H.S., and Liu, Y-H, "Dynamics of Commuting Decision Behaviour Under Advanced Traveler Information Systems (ATIS)," *International Association Travel Behaviour Research (IATBR) 1997 Conference*, Austin, Texas, September 21-25, 1997.
- Mahmassani, H.S. and Jou, R-C, "Commuter Behaviour Dynamics: Transferring Insights From Laboratory Experiments to the Field," *8th International Conference on Travel Behaviour, IATBR '97*, Austin, Texas, September 21-25, 1997.
- Mahmassani, H.S. and Abdelfatah, A., "Time Dependent Route Guidance and Traffic Signal Coordination in Congested Traffic Networks," *INFORMS Dallas Fall 1997 Meeting*, Dallas, Texas, October 26, 1997.
- Foster, J. and Mahmassani, H.S., "Elicitation and Comparison of Public Sector Agency Decision-Maker Preferences for Multimodal Strategic Project Selection," *INFORMS Dallas Fall 1997 Meeting*, Dallas, Texas, October 29, 1997.

- Hawas, Y. E. and Mahmassani, H.S., "A Cooperative Decentralized Architecture and a Communication Protocol for Dynamic Traffic Assignment," *INFORMS Dallas Fall 1997 Meeting*, Dallas, Texas, October 28, 1997.
- Hawas, Y.E. and Mahmassani, H.S., "An Integrated Architecture for Real-Time Dynamic Traffic Assignment," *INFORMS Dallas Fall 1997 Meeting*, Dallas, Texas, October 28, 1997.
- Kang, Y. and Mahmassani, H.S., "Real-Time Estimation of Time Dependent O-D Flows Using Kalman Filter with Polynomial Expression of State Variables," *INFORMS Dallas Fall 1997 Meeting*, Dallas, Texas, October 26, 1997.
- Miller-Hooks, E. and Mahmassani, H.S., "A Priori Least Expected Time Paths in Stochastic, Time-Varying Networks," *INFORMS Dallas Fall 1997 Meeting*, Dallas, Texas, October 27, 1997.
- Regan, A.C., Mahmassani H.S., and Jaillet, P., "Operational Strategies for Dynamic Dispatching of Carrier Fleet Operations," *INFORMS Dallas Fall 1997 Meeting*, Dallas, Texas, October 27, 1997.
- Ziliaskopoulos, A. and Duan, D.L., and Mahmassani, H.S., "A Consistency Analysis and Restoration Model for a Real-Time Dynamic Traffic Assignment System," *INFORMS Dallas Fall 1997 Meeting*, Dallas, Texas, October 28, 1997.
- Chiu, Y-C and Mahmassani, H.S., and Hawas, Y.E., "Numerical Experiments with a Dynamic Traffic Assignment Procedure in a Rolling Horizon Framework," *INFORMS Dallas Fall 1997 Meeting*, Dallas, Texas, October 28, 1997.
- Mahmassani, H.S., "Integrating System Operation Considerations in Planning Transportation Infrastructure Investments," invited presentation, *5th Advisory Meeting of the University of Puerto Rico Civil Infrastructure Research Committee*, San Juan, Puerto Rico, November 12-15, 1997.
- Abdelfatah, A., and Mahmassani, H.S., "System Optimal Time-Dependent Path Assignment and Signal Timing in a Traffic Network," *77th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 12, 1998.
- Garrido, R. and Mahmassani, H.S., "Forecasting Short Term Freight Transportation Demand: The Poisson STARMA Model," *77th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 12, 1998.
- Garrido, R. and Mahmassani, H.S., "Forecasting Freight Transportation Demand With The Space-Time Multinomial Probit Model", *International Association Travel Behaviour Research (IATBR) 1997*, Austin, TX, September 23, 1997.
- Liu, Y-H and Mahmassani, H.S., "Dynamic Aspects of Commuter Decisions Under ATIS: Modeling Framework and Experimental Results," *77th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 12, 1998.
- Mahmassani, H.S. and Jou, R-C, "Commuter Behaviour Dynamics: Transferring Insights from Laboratory Experiments to Actual Systems," *77th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 12, 1998.
- Shih, M-C, Mahmassani, H.S., and Baaj, M.H., "A Planning and Design Model in Transit Route Networks with Coordinated Operations," *77th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 12, 1998.
- Miller-Hooks, E. and Mahmassani, H.S., "Optimal Routing of Hazardous Materials in Stochastic, Time-Varying Transportation Networks," *77th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 13, 1998.
- Regan, A.C., Mahmassani, H.S., and Jaillet, P., "Evaluation of Dynamic Fleet Management Systems: A Simulation Framework," *77th Annual Meeting of the Transportation Research Board*, Washington, D.C., January 13, 1998.

- Bowler, L. and Mahmassani, H.S., "Routing and Scheduling of Radio-Active Shipments in Networks with Time-Varying Costs and Curfews," *INFORMS Montreal Spring 1998 Meeting*, Montreal, Canada, April 28, 1998.
- Chen, P. and Mahmassani, H.S., "Modeling Commuter Behaviour Under Real-Time Traffic Information," *INFORMS Montreal Spring 1998 Meeting*, Montreal, Canada, April 28, 1998.
- Chiu, Y-C, Hawas, Y., and Mahmassani, H.S., "Comparative Analysis and Testing of Hybrid Route Guidance Systems," *INFORMS Montreal Spring 1998 Meeting*, Montreal, Canada, April 28, 1998.
- Kang, Y. and Mahmassani, H.S., "A Real-Time Framework for Origin-Destination Flow Estimation and Prediction Problems in Congested Vehicular Networks," *INFORMS Montreal Spring 1998 Meeting*, Montreal, Canada, April 28, 1998.
- Kang, Y., Mahmassani, H.S., Hawas, Y., and Ziliaskopoulos, A., "A System Consistency Maintenance Framework for the Real-Time Operation of Dynamic Traffic Systems," *INFORMS Montreal Spring 1998 Meeting*, Montreal, Canada, April 28, 1998.
- Miller-Hooks, E. and Mahmassani, H.S., "Heuristics for Determining a Priority Pareto-Optimal Least Time Paths in Stochastic Time-Varying Networks," *INFORMS Montreal Spring 1998 Meeting*, Montreal, Canada, April 29, 1998.
- Srinivasan, K., Mahmassani, H.S., and Chen, P., "Commuter Route and Departure-Time Choice Behaviour Under Congested Conditions," *INFORMS Montreal Spring 1998 Meeting*, Montreal, Canada, April 28, 1998.
- Mahmassani, H.S., "Intelligent Transportation Systems," invited tutorial, *INFORMS Montreal Spring 1998 Meeting*, Montreal, Canada, April 28, 1998.
- Mahmassani, H.S., invited tutorial Demonstration of DYNASMART-X Real-Time Traffic Assignment System, ITS '98, *Intelligent Transportation Society of America's Eighth Annual Meeting and Exposition* entitled, "Intelligent Transportation Systems: Technology for Today," Detroit, Michigan, May 4-7, 1998.
- Hawas, Y.E. and Mahmassani, H.S., "A Distributed Computational Architecture for a Centralized Real-Time Dynamic Traffic Assignment Algorithm," *TRISTAN III*, San Juan, Puerto Rico, June 17-23, 1998.
- Miller-Hooks, E. and Mahmassani, H.S., "The Generation of Nondominated Paths in Stochastic, Time-Varying Networks," *TRISTAN III*, San Juan, Puerto Rico, June 17-23, 1998.
- Regan, A.C. and Mahmassani, H.S., "Dynamic Re-Sequencing and En-Route Diversion Strategies for Carrier Fleet Operations: Simulation Investigation," *TRISTAN III*, San Juan, Puerto Rico, June 17-23, 1998.
- Kraan, M. and Mahmassani, H.S., "Behavioural Responses of Non-Commuters to ATIS," *8th World Conference on Transport Research*, Antwerpen, Belgium, July 12-17, 1998.
- Kraan, M. and Mahmassani, H.S., "Information Use and Tourists Preferences: for Advanced Information Systems," *8th World Conference on Transport Research*, Antwerpen, Belgium, July 12-17, 1998.
- Hu, T-Y and Mahmassani, H.S., "Simulation-Assignment Model-Dynasmart With Multiple Vehicle Classes," *8th World Conference on Transport Research*, Antwerpen, Belgium, July 12-17, 1998.
- Abdelfatah, A.S., and Mahmassani, H.S., "Dynamic Traffic Assignment and Coordinated Signal Control In A Congested Network," (*WCTR*) *8th World Conference on Transport Research*, Antwerpen, Belgium, July 12-17, 1998.
- Kang, Y., Mahmassani, H.S., Hawas, Y. and Ziliaskopoulos, A., "Consistency Checking and Updating Operations for Real-Time Dynamic Traffic Assignments," *INFORMS (Institute for Operations Research and the Management Sciences) Fall Meeting*, Seattle, Washington, October 27, 1998.

- Kang, Y. and Mahmassani, H.S., "Real-Time Dynamic Origin Destination Flow Estimation and Prediction in Large Networks," *INFORMS (Institute for Operations Research and the Management Sciences) Fall Meeting*, Seattle, Washington, October 26, 1998.
- Abdelfatah, A.S. and Mahmassani, H.S., "Time-Dependent Marginal Travel Times for a Combined System Optimal Assignment and Signal Control Problem," *INFORMS (Institute for Operations Research and the Management Sciences) Fall Meeting*, Seattle, Washington, October 24, 1998.
- Abdelghany, K.F., Chiu, Y-C, and Mahmassani, H.S., "Route Guidance and Network State Prediction Consistency for Real-Time Dynamic Traffic Assignment Systems," *INFORMS (Institute for Operations Research and the Management Sciences) Fall Meeting*, Seattle, Washington, October 25, 1998.
- Miller-Hooks, E. and Mahmassani, H.S., "Using Node Labels to Determine Optimal Paths in Stochastic Time-Varying Networks," *INFORMS (Institute for Operations Research and the Management Sciences) Fall Meeting*, Seattle, Washington, October 25, 1998.
- Mahmassani, H.S., "Real-Time Dynamic Traffic Assignment for Advanced Traffic Management," *CALTRANS (California Transportation System) and University of California-Irvine*, University of California, Irvine, November 1998.
- Mahmassani, H.S., invited lecturer at *Transport Canada Seminar*, Ottawa, Canada, "The Impact of ICT on Third Property Logistics Providers and Freight Transport Out-Sourcing," November 27, 1998.
- Abdelghany, K., Valdes, D., Abdelfatah, A., and Mahmassani, H.S., "Real-Time Dynamic Traffic Assignment and Path-based Signal Coordination: Application to Network Traffic Management," *78th Annual Meeting of the Transportation Research Board*, Washington, DC, January 11, 1999.
- Mahmassani, H.S. and Hawas, Y., "Traffic Network Analysis and Real-Time Assignment Using DYNASMART-X," *78th Annual Meeting of the Transportation Research Board*, Washington, DC, January 11, 1999.
- Doan, D., Ziliaskopoulos, A., and Mahmassani, H.S., "On-Line Monitoring System for Real-Time Traffic Management Applications," *78th Annual Meeting of the Transportation Research Board*, Washington, DC, January 10-14, 1999.
- Chen, P., Srinivasan, K., and Mahmassani, H.S., "Effect of Information Quality on Compliance Behaviour of Commuters under Real-Time Traffic Information," *78th Annual Meeting of the Transportation Research Board*, Washington, DC, January 13, 1999.
- Srinivasan, K.K. and Mahmassani, H.S., "Role of Congestion and Information in Tripmakers' Dynamic Decision Processes: An Experimental Investigation," *78th Annual Meeting of the Transportation Research Board*, Washington, DC, January 13, 1999.
- Srinivasan, K., and Mahmassani, H.S., "Estimation and Prediction of Dynamic Origin Destination (O-D) Flows with a Polynomial Transformation for Real-time Application," *78th Annual Meeting of the Transportation Research Board*, Washington, D.C., 1999.
- Tavana, H., Mahmassani, H.S., and Haas, C., "Effectiveness of Wireless Phones in Incident Detection: A Probabilistic Analysis," *78th Annual Meeting of the Transportation Research Board*, Washington D.C., January 11, 1999.
- Taylor, D., and Mahmassani, H.S., "Bicyclist and Motorist Gap Acceptance Behaviour in Mixed-Traffic," *78th Annual Meeting of the Transportation Research Board*, Washington D.C., January 12, 1999.
- Taylor, D., and Mahmassani, H.S., "Coordinating Traffic Signals for Non-Stop Bicycle Travel," *78th Annual Meeting of the Transportation Research Board*, Washington D.C., January 1999.
- Yang, J., Jaillet, P., and Mahmassani, H.S., "On-line Algorithms for Truck Fleet Assignment and Scheduling under Real-time Information," *78th Annual Meeting of the Transportation Research Board*, Washington D.C., January 14, 1999.

- Mahmassani, H.S., "Dynamic Traffic Assignment," invited lecture at Purdue University, Lafayette, Indiana, April 5, 1999.
- Kim, Y-J, Jaillet, P., and Mahmassani, H.S., "Combined Real-time Commercial Vehicle Fleet Operations Strategy," *INFORMS (Institute for Operations Research and the Management Sciences) Spring1999 Meeting*, Cincinnati, Ohio, May 3, 1999.
- Chiu, Y-C and Mahmassani, H.S., "Hybrid Dynamic Network Traffic Assignment Strategies: Algorithmic Framework and Computational Experiments," *INFORMS (Institute for Operations Research and the Management Sciences) Spring1999 Meeting*, Cincinnati, Ohio, May 4, 1999.
- Mahmassani, H.S., and Chiu, Y-C, "Hybrid Strategies for Dynamic Traffic Assignment," *Optimization Days 1999 Conference*, Montreal, Canada, May 10, 1999.
- Yang, J., Jaillet, P., and Mahmassani, H.S., "Robustness and Optimization Issues with Real-time Scheduling," *Optimization Days 1999 Conference*, Montreal, Canada, May 11, 1999.
- Kim, Y-J, Jaillet, P., and Mahmassani, H.S., "Combined Strategies for Real-time Assignment and Routing of Trucking Fleets," *Optimization Days 1999 Conference*, Montreal, Canada, May 11 1999.
- Mahmassani, H.S., "Dynamic Traffic Assignment and Real-Time Route Guidance," *Optimization Days 1999 Conference*, Montreal, Canada, May 12, 1999.
- Mahmassani, H.S., Haas, C., Peterman, J., Zhou, S., and Tavana, H., "Evaluation of Incident Detection Methodologies," *TxDOT RMC 4*, San Antonio, TX, June 8, 1999.
- Mahmassani, H.S., "Setting Targets and Priorities for the Passenger Transport System," *Workshop on Land, Transport Policy for Lebanon*, Beirut, Lebanon, July 7, 1999.
- Mahmassani, H.S., "Aviation on the Surface" - Integration of Air and Ground Transportation: Multimodal Access Considerations at Major Airport Terminals," *2nd Annual North Texas Transportation Summit: Meeting Transportation Head On!*, August 19, 1999.
- Mahmassani, H.S., "Recent Developments in Intelligent Transportation Systems Research and Deployment," *Workshop on Intelligent Transportation Systems: Developments and Opportunities* sponsored by the American University of Beirut, Beirut, Lebanon, September 21-27, 1999.
- Mahmassani, H.S., "DYNASMART-X: Interactive DTA Presentation," (FHWA) *Federal Highway Administration in Harris County, Research and Development Meeting*, Houston, Texas, October 26-27, 1999.
- Mahmassani, H.S., "Hybrid Approaches to Dynamic Traffic Assignment Models, Algorithms and Applications," *Conference on Transport Optimization*, Oberwolfach, Germany, Nov. 6-13, 1999.
- Abdelghany, A.F. and Mahmassani, H.S., "Temporal-Spatial Micro-Assignment of Travel Demand with Activity Chains," *INFORMS (Institute for Operations Research and the Management Sciences) Conference*, Philadelphia, PA, November 7, 1999.
- Abdelghany, K.F. and Mahmassani, H.S., "A Multi-Objective Shortest Path Algorithm for Large-Scale Intermodal Transportation," *INFORMS (Institute for Operations Research and the Management Sciences) Conference*, Philadelphia, PA, November 7, 1999.
- Chiu, Y-C and Mahmassani, H.S., "A Hybrid A Priori and Online Reoptimization Framework for Real-Time Route Guidance Applications," *INFORMS (Institute for Operations Research and the Management Sciences) Conference*, Philadelphia, PA, November 7, 1999.
- Kang, Y. and Mahmassani, H.S., "System Consistency Control for Real-Time Dynamic Traffic Assignment Operations," *INFORMS (Institute for Operations Research and the Management Sciences) Conference*, Philadelphia, PA, November 7, 1999.
- Huynh, N., Mahmassani, H.S., Chiu, Y-C, and Abdelghany, K.F., "Real-Time Schedulability of a Distributed Dynamic Traffic Assignment System," *INFORMS (Institute for Operations Research and the Management Sciences) Conference*, Philadelphia, PA, November 7, 1999.

- Peterman, J., Mahmassani, H.S., and Hass, C., "Automatic Incident Detection Algorithms: Calibration and Evaluation," *INFORMS (Institute for Operations Research and the Management Sciences) Conference*, Philadelphia, PA, November 7, 1999.
- Kang Y. and Mahmassani, H.S., "Real-Time Estimation and Prediction of Dynamic Origin-Destination Demand," *INFORMS (Institute for Operations Research and the Management Sciences) Conference*, Philadelphia, PA, November 8, 1999.
- Srinivasan, K. and Mahmassani, H.S., "Investigation of Processes Underlying Commuters Dynamic Route and Departure Time under Real-Time Information," *INFORMS (Institute for Operations Research and the Management Sciences) Conference*, Philadelphia, PA, November 7, 1999.
- Tavana, H. and Mahmassani, H.S., "A Threshold-Constrained System Optimal Dynamic Assignment for Route Guidance," *INFORMS (Institute for Operations Research and the Management Sciences) Conference*, Philadelphia, PA, November 7, 1999.
- Abdelghany, A.F., Abdelghany, K.F., Mahmassani, H., and Murray, P.M., "Using Dynamic Traffic Assignment in the Design and Evaluation of High Occupancy Toll Lanes," *79th Annual Transportation Research Board Meeting*, Washington, D.C., January 13, 2000.
- Abdelfatah, A.S. and Mahmassani, H.S., "Time-Dependent Signal Control and System Optimal Assignment in Congested Networks: Algorithm Implementation and Numerical Results," *79th Annual Transportation Research Board Meeting*, Washington, D.C., January, 9-13, 2000.
- Huynh, N.H., Chiu, Y-C., and Mahmassani, H.S., "Assessment of Computational Performance and Resources of Real-Time Decision Systems for Intelligent Transportation System Operation," *79th Annual Transportation Research Board Meeting*, Washington, D.C., January, 9-13, 2000.
- Kraan, M., Mahmassani, H.S., and Huyhn, N., "Interactive Survey Approach to Study Travel Responses to ATIS for Shopping Trips," *79th Annual Transportation Research Board Meeting*, Washington, D.C., January, 12, 2000.
- Mahmassani, H.S., Kim, Y-J., and Jaillet, P., "Local Optimization Approaches to Solve Dynamic Commercial Fleet Management Problems," *79th Annual Transportation Research Board Meeting*, Washington, D.C., January, 12, 2000.
- Srinivasan, K.K. and Mahmassani, H.S., "Analyzing Heterogeneity and Unobserved Structural Effects in Route-Switching Behaviour under ATIS: A Dynamic Kernel Logit (DKL) Formulation," *79th Annual Transportation Research Board Meeting*, Washington, D.C., January, 9-13, 2000.
- Srinivasan, K.K. and Mahmassani, H.S., "Modeling Inertia and Compliance Mechanisms in Route Choice Behaviour under Real-Time Information," *79th Annual Transportation Research Board Meeting*, Washington, D.C., January, 10, 2000.
- Tavana, H. and Mahmassani, H.S., "Estimation and Application of Dynamic Speed-Density Relations Using transfer Function Models," *79th Annual Transportation Research Board Meeting*, Washington, D.C., January, 10, 2000.
- Taylor, D.B. and Mahmassani, H.S., "Coordinating Traffic Signals for Bicycle Progression," *79th Annual Transportation Research Board Meeting*, Washington, D.C., January, 9, 2000.
- Valdes-Diaz, D.M., Chiu, Y-C., and Mahmassani, H.S., "Optimal Time-Dependent Variable Message Sign Diversion Strategy," *79th Annual Transportation Research Board Meeting*, Washington, D.C., January, 9-13, 2000.
- Mahmassani, H.S., "Emerging Dynamic Traffic Assignment Methods for Planning and Evaluation of Transportation Network Operational Strategies," *CE 697-Special Seminar, American University of Beirut*, Faculty of Engineering and Architecture, Department of Civil & Environmental Engineering, March, 14, 2000.
- Mahmassani, H.S., "Challenges and Opportunities in Transportation Telecommunications Interactions," invited keynote speaker, *1st IGERT (Integrative Graduate Education and Research Training)*

Graduate Student Research Conference on Travel Behaviour, Planning, Modeling and Policy, National Science Foundation and Institute of Transportation Studies, University of California-Davis, Davis, CA, April 3-4, 2000.

Mahmassani, H.S., "Advances in Real-time Dynamic Traffic Assignments," invited lecturer, *Seminar Series at INRETS (Institut National De Recherche Sur Les Transports Et Leur Securite* (French Seminar on Real-Time Dynamic Traffic Assignment), Lyon, France, April 8-13, 2000.

Mahmassani, H.S., Web-Based Tutorial Presentation on ITS (Intelligent Transportation Systems), *University of Michigan*, Ann Arbor, MA, April 28, 2000.

Mahmassani, H.S., "DYNASMART-P and DYNASMART-X Software Exhibit," *ITS (Intelligent Transportation Systems) 2000 Conference*, Boston, MA, April 30-May 3, 2000.

Yang, J., Jaillet, P., and Mahmassani, H.S., "On the Real-Time Truckload Pickup and Delivery Problem with Time Windows," *INFORMS (Institute for Operations Research and the Management Sciences)*, Salt Lake City Conference, Salt Lake City, Utah, May 8, 2000.

Kim, Y-J., Mahmassani, H.S., and Jaillet, P., "Local Optimization Approaches to Solve Dynamic Commercial Fleet Management Problems," *INFORMS (Institute for Operations Research and the Management Sciences)*, Salt Lake City Conference, Salt Lake City, Utah, May 8, 2000.

Mahmassani, H.S., "Development of a Deployable Real-Time Dynamic Traffic Assignment System: DTA (Dynamic Traffic Assignment) Demonstration and Progress Report," presented to Federal Highway Administration (FHWA), Washington, DC, May 9-12, 2000.

Mahmassani, H.S., Jaillet, P. and Kim, Y., "Strategies for Dynamic Fleet Assignment Decision Under Real-Time Information." *Odyssey 2000, First International Workshop on Freight Transportation and Logistics*, Chania, Greece, May 24, 2000.

Mahmassani, H.S., Kockelman, K. and Ten-Siethoff, B., "Research on Relationships Between Transportation Infrastructure and Increases in Vehicle Miles Traveled," *Workshop on Induced Traffic Research*, sponsored by the U.S. Environmental Protection Agency, University of California-Berkeley, Berkeley, CA, June 8-9, 2000.

Mahmassani, H.S., "Freight Demand Applications: Workshop Report," *9th International Association of Travel Behaviour Research (IATBR) Conference*, Gold Coast, Queensland, Australia, July 2-6, 2000.

Abdelghany, A.F. and Mahmassani, H.S., "Micro-Assignment of Travel Demand and Activity/Trip Chains," *9th International Association of Travel Behaviour Research (IATBR) Conference*, Gold Coast, Queensland, Australia, July 2-6, 2000.

Srinivasan, K.K. and Mahmassani, H.S., "Kernel Logit Method for the Longitudinal Analysis of Discrete Choice Data: Some Numerical Experiments," *9th International Association of Travel Behaviour Research (IATBR) Conference*, Gold Coast, Queensland, Australia, July 2-6, 2000.

Mahmassani, H.S., Huynh, N., Srinivasan, K., and Abdelghany, A., "Tripmaker Choice Behaviour for Shopping Trips under Real-Time Information: Results of Stated Preference Internet-Based Interactive Experiments," *9th International Association of Travel Behaviour Research (IATBR) Conference*, Gold Coast, Queensland, Australia, July 2-6, 2000.

Mahmassani, H.S., invited plenary speaker, "Developments in Dynamic Network Assignment Models and Applications," *Rome Jubilee 2000 Conference, 8th Meeting of the EURO Working Group Transportation (EWGT), Workshop of the International Foundation for Production Research (IFPR)*, University "La Sapienza," Faculty of Engineering, Rome Italy, September 11-14, 2000.

Mahmassani, H.S., invited lecture "Dynamic Traffic Assignment and Real-time Information Systems," University of California –Berkeley, Berkeley, CA, October 2000.

Abdelghany, K.F., and Mahmassani, H.S., "Planning Model for Urban Intermodal Transportation Networks," (*INFORMS*) *Institute for Operations Research and the Management Sciences Conference*, San Antonio, Texas, November 2000.

- Abdelghany, A.F., and Mahmassani, H. S., "Micro-Assignment of Travel Demand with Activity/Trip Chains," *(INFORMS) Institute for Operations Research and the Management Sciences Conference*, San Antonio, Texas, November 2000.
- Mahmassani, H. S., Chiu, Y-C, Abdelghany, A.F., Abdelghany, K.F., Huynh, N., and Zhou, X., "Emerging Dynamic Traffic Assignment Methods for Planning and Evaluating Transportation Network Operational Strategies." *(INFORMS) Institute for Operations Research and the Management Sciences Conference*, San Antonio, Texas, November 2000.
- Murray, P. M., Mahmassani, H.S., and Abdelghany, A.F., "Evaluation of High Occupancy Toll Lanes Using Dynamic Traffic Assignment with a Stochastic Mode Choice Model," *(INFORMS) Institute for Operations Research and the Management Sciences Conference*, San Antonio, Texas, November 2000.
- Tavana, H., and Mahmassani, H.S., "Estimation of Dynamic Origin-Destination Flows from Traffic Counts in Congested Networks Using Bi-Level Optimization," *(INFORMS) Institute for Operations Research and the Management Sciences Conference*, San Antonio, Texas, November 2000.
- Yang, J., Jaillet, P., Mahmassani, H. S., "Study of a Real-Time Multi-Vehicle Truckload Pickup and Delivery Problem," *(INFORMS) Institute for Operations Research and the Management Sciences Conference*, San Antonio, Texas, November 2000.
- Kim, Y-J, Jaillet, P , and Mahmassani, H.S., "Real-Time Strategies for Large Commercial Fleet Operations," *(INFORMS) Institute for Operations Research and the Management Sciences Conference*, San Antonio, Texas, November 2000.
- Mahmassani, H.S., Invited Plenary Address: "Advanced Transport Modeling in the Dynamic Analysis of Transportation Systems," *Metodi E Tecnologie Per L'Ingegneria Dei Trasporti Seminario 2000*, Auxla Magna Facoltà di Ingegneria, Reggio Calabria, Italy, December 11-13, 2000.
- Mahmassani, H. S., "DYNASMART-X: Modeling Approach and Applications," *80th Annual Transportation Research Board Meeting*, Washington, DC, January 2001.
- Pillai, R., Mahmassani, H.S., and Stevens, J., "DYNASMART-P for Work Zone Planning," *80th Annual Transportation Research Board Meeting*, Washington, DC, January 2001.
- Mahmassani, H.S., "Overview of IATBR 2000 Structure and Workshops," *80th Annual Transportation Research Board Meeting*, Washington, DC, January 2001.
- Mahmassani, H.S., "Freight and Commercial Vehicle Applications Workshop Recommendations," *80th Annual Transportation Research Board Meeting*, Washington, DC, January 2001.
- Mahmassani, H.S., "Transportation Behavior and Metadata," *80th Annual Transportation Research Board Meeting*, Washington, DC, January 2001.
- Kaysi, I.A., Moghrabi, S., and Mahmassani, H.S., "Hot-Spot Management Strategies in Congested Developing City: Application to Beirut Network," *80th Annual Transportation Research Board Meeting*, Washington, DC, January 2001.
- Srinivasan, K.K. and Mahmassani, H.S. "Dynamics in Departure Time Choices of Commuters: Comparison of Alternative Adjustment Mechanisms," *80th Annual Transportation Research Board Meeting*, Washington, DC, January 2001.
- Tavana, H. and Mahmassani, H.S., "Estimation of Dynamic Origin Destination Flows from Sensor Data Using Bi-Level Optimization Method," *80th Annual Transportation Research Board Meeting*, Washington, DC, January 2001.
- Chiu, Y-C, Huynh, N.H., and Mahmassani, H.S., "Determining Optimal Locations for Variable Message Signs Under Stochastic Incident Scenarios," *80th Annual Transportation Research Board Meeting*, Washington, DC, January 2001.

- Mahmassani, H.S., "Drinking from a Fire Hose: Real-time Information and Transportation Decision Making," invited to deliver the Mel Webber Lecture at University of California Transportation Center (UCTC), *Seventh Annual UCTC Student Conference*, University of California-Irvine, February 9-10, 2001.
- Mahmassani, H. S., invited plenary speaker, "Modeling Crowd Behavior Dynamics in Religious Events: Makkah Pilgrimage," *First International Conference on Pedestrian and Evacuation Dynamics*, Duisburg, Germany, April 4-6, 2001.
- Mahmassani, H.S., Invited lecture, "Drinking from a Fire Hose: Real-time Data and Transportation Decision Making," Faculty of Engineering and Architecture, Department of Civil and Environmental Engineering, American University of Beirut, May 20, 2001.
- Mahmassani, H.S., invited lecture: "DYNASMART-IP: Dynamic Traffic Assignment Meso-Simulator for Intermodal Networks," at the University of Rome, Italy, Department of Civil Engineering, Transportation Laboratory Invited Lecture Series titled "Advanced Course on Transit Networks," May 23-25, 2001
- Kim, Y-J, Jaillet, P., Mahmassani, H.S., "Dynamic Truck Operation Strategies for Truckload Pickup and Delivery Problems with Time Windows," *TRISTAN IV Conference*, (Triennial Symposium on Transportation Analysis), Azores Islands, Portugal, June 13-19, 2001
- Mahmassani, H.S., "Online Transportation Markets: Performance Models and Real-Time Fleet Operational Strategies", *National Science Foundation Workshop*, Session VII(CMS), Washington, DC, August 14, 2001.
- Mahmassani, H.S., "Towards Hybrid Online Dynamic Traffic Assignment Procedures for Network Traffic Management," invited lecture, The Hong Kong Polytechnic University, Department of Civil and Structural Engineering Seminar jointly organized with The Hong Kong Society for Transportation Studies, Hong Kong, August 17, 2001.
- Abdelfatah, A.S., and Mahmassani, H. S., "A Simulation-based Optimization Algorithm within a Dynamic Traffic Assignment Framework," *4th International 2001 Conference on Intelligent Transportation Systems (ITSC)*, Oakland, CA, August 25-30, 2001.
- Chiu, Y-C and Mahmassani, H.S. "Toward Hybrid Dynamic Traffic Assignment-Models and Solution Procedures," *4th International 2001 Conference on Intelligent Transportation Systems (ITSC)*, Oakland, CA, August 25-30, 2001
- Mahmassani, H.S. "Perpetual Virtual Motion: Transportation Systems Research for the Age of Wireless Telecommunications", invited plenary lecture, *Workshop on Intelligent Transportation and Telematic Systems*, Cal-(IT)2, University of California at San Diego, October 2001.
- Mahmassani, H.S, "Virtual Mobility and Real-Time Information Availability: Hybrid Online Strategies for Network Traffic Management," invited speaker, University of California-Irvine ITS Seminar, Irvine, CA, October 19, 2001.
- Abdelghany, K.F. and Mahmassani, H.S., "Real-Time Consistent-Normative Traveler Information Supply Strategies: Applications to Network Traffic Management," *INFORMS (Institute for Operations Research and the Management Sciences)*, Miami, Florida, November 4, 2001.
- Abdelghany, K.F. and Mahmassani, H.S., "A Stochastic Dynamic Trip Assignment Model for Intermodal Transportation Networks," *INFORMS (Institute for Operations Research and the Management Sciences)*, Miami, Florida, November 5, 2001.
- Srinivasan, K. and Mahmassani, H.S., "Investigating Learning Processes in Commuter Behaviour under Real-Time Information," *INFORMS (Institute for Operations Research and the Management Sciences)*, Miami, Florida, November 5, 2001.
- Tavana, H. and Mahmassani, H.S., "A Bi-level Nonlinear Programming Formulation to Estimate Dynamic Origin-Destination Flows from Traffic Counts," *INFORMS (Institute for Operations Research and the Management Sciences)*, Miami, Florida, November 5, 2001

- Huynh, N., Chiu, Y-C, and Mahmassani, H.S., "Online Adaptive Variable Message Sign Control for Traffic Network Congestion Management," *INFORMS (Institute for Operations Research and the Management Sciences)*, Miami, Florida, November 5, 2001.
- Zhou, X., Huynh, N. and Mahmassani, H.S., "Assessment of Computational Performance of Transportation Network Modeling Software," *INFORMS (Institute for Operations Research and the Management Sciences)*, Miami, Florida, November 5, 2001.
- Huynh, N., Chiu, Y-C, and Mahmassani, H.S., "Designing Optimal VMS Locations under Stochastic Incidents and Information Provision Scenarios," *INFORMS (Institute for Operations Research and the Management Sciences)*, Miami, Florida, November 6, 2001.
- Abdelghany, A.F. and Mahmassani, H.S., "Dynamic Micro-Assignment for Travel Demand with Activity/Trip Chains," *INFORMS (Institute for Operations Research and the Management Sciences)*, Miami, Florida, November 6, 2001.
- Mahmassani, H.S. "Online Hybrid Dynamic Network Traffic Assignment Strategies: Models, Algorithms and Experiments", invited lecture, Traffic and Transportation International Seminar Series, Dresden Technical Institute, Dresden, Germany, November 2001.
- Mahmassani, H.S., "Experiments with Route and Departure Time Choices of Commuters under Real-Time Information: Heuristics and Adjustment Processes," invited speaker, *Workshop on Human Behaviour and Traffic Networks*, University of Bonn, Bonn, Germany, December 17, 2001.
- Mahmassani, H.S., "Operational Planning with Simulation-Based Dynamic Traffic Assignment-Features, Input/Output, Applications, and Calibration," *81st Transportation Research Board Annual Meeting*, January 2002
- Chiu, Y-C, Huynh, N.H., and Mahmassani, H.S., "Integrated Corridor Management and Optimal Variable Message Sign Location," *81st Transportation Research Board Annual Meeting*, 2002.
- Chiu, Y-C., and Mahmassani, H.S., "Hybrid Real-Time Dynamic Traffic Assignment Approach for Robust Network Performance," *81st Transportation Research Board Annual Meeting*, 2002.
- Huynh, N.H., Mahmassani, H.S., and Tavana, H., "Adaptive Speed Estimation Using Transfer Function Models for Real-Time Dynamic Traffic Assignment Operation," *81st Annual Transportation Research Board Meeting*, January 2002.
- Kim, Y-J, Mahmassani, H.S., and Jaillet, P, "Dynamic Truckload Truck Routing and Scheduling in Over-saturated Demand Situation," *81st Transportation Research Board Annual Meeting*, January 2002.
- Lin, I. and Mahmassani, H.S., "Can Online Groceries Deliver? Some Logistics Considerations," *81st Transportation Research Board Annual Meeting*, 2002.
- Ludders, F.J., Mahmassani, H.S., and Jaillet, P., "Mixed Integer Programming Formulations for the Groundside Routing Problem in the Intermodal Express Package Industry," *81st Transportation Research Board Annual Meeting*, January 2002.
- Mahmassani, H.S., "Dynamic Network Traffic Assignment and Simulation Methodology for Advanced Systems Management Applications," *81st Transportation Research Board Annual Meeting*, January 2002.
- Mahmassani, H.S., Sbayti, H. and Chiu, Y-C, "Traffic Management Strategies Evaluation in Work Zone Areas," *81st Annual Transportation Research Board Meeting*, January 2002.
- Srinivasan, K.K. and Mahmassani, H.S., "Trip Time Perception and Judgment Processes in Tripmaker Decisions under Real-time Traffic Information," *81st Annual Transportation Research Board Meeting*, January 2002.
- Zhou, X. and Mahmassani, H.S., "Dynamic Programming Approach for On-Line Freeway Flow Propagation Adjustment," *81st Annual Transportation Research Board Meeting*, January 2002.

- Huynh, N and Mahmassani, "Determining Optimal Number and Locations of Variable Message Signs for Real-Time Network Traffic Management," *Journees De L'Optimisation* Conference, Montreal, Canada, May 7, 2002.
- Ludders, F.J, Jaillet, P. and Mahmassani, H.S, "Mixed Integer Programming Models for Integrated Vehicle Routing and Flight Assignment in the Intermodal Express Package Industry," *Journees De L'Optimisation* Conference, Montreal, Canada, May 7, 2002.
- Figliozzi, M., Mahmassani, H.S., and Jaillet, P., "Online Transportation Markets: Performance Models and Real-Time Strategies," *Journees De L'Optimisation* Conference, Montreal, Canada, May 8, 2002.
- Kim, Y-J, Mahmassani, H.S., and Jaillet, P., "Dynamic Truckload Routing and Scheduling for Large Fleet with Priority Demand," *Journees De L'Optimisation* Conference, Montreal, Canada, May 7, 2002.
- Zhou, X and Mahmassani, H.S., "Numerical Experiments with Reoptimization Algorithms for the All-pairs Shortest Path Problem on Transportation Networks," *Journees De L'Optimisation* Conference, Montreal, Canada, May 6, 2002.
- Chiu, Y-C and Mahmassani, H.S., "Optimal Variable Message Sign Location under Stochastic Incident Conditions," *Journees De L'Optimisation* Conference, Montreal, Canada, May 6, 2002.
- Mahmassani, H.S., "Strategies for Real-Time Operation and Planning of Stochastic Dynamic Systems," *13th Min-EURO Conference: Handling Uncertainty in the Analysis of Traffic and Transportation Systems & 9th Meeting of the EURO Working Group on Transportation*, Bari, Italy, June 13, 2002.
- Mahmassani, H.S., and Srinivasan, K., "Perception and Judgment Processes in Traveler Decisions Under Real-Time Traffic Information," *13th Min-EURO Conference: Handling Uncertainty in the Analysis of Traffic and Transportation Systems & 9th Meeting of the EURO Working Group on Transportation*, Bari, Italy, June 13, 2002.
- Mahmassani, H.S., invited speaker, "Simulation for Advanced Traffic Management," *International Symposium on Transport Simulation*, Yokohama, Japan, August 19-20, 2002.
- Figliozzi, M., Mahmassani, H.S., and Jaillet, P., "Modeling Online Transportation Market Performance under Real-Time Carrier Bidding Strategies," *International Conference on Electronic Commerce Research*, Montreal, Canada, October 2002.
- Mahmassani, H.S., invited speaker, "A Vision in Progress: Developments in Intelligent Transportation Systems -- U.S. Perspective", *II Congres Internacional sobre Politiques Europees de Transit*, Barcelona, November 2002.
- Mahmassani, H.S., invited speaker, "Mesoscopic Traffic Flow Models for Dynamic Traffic Assignment", in Special Session on Mathematical Models for Traffic Flow (Phantom Jams and Real Data), *Annual Meeting of the American Association for the Advancement of Science*, Denver, CO. February 17 2003.
- Figliozzi, M., Mahmassani, HS., and Jaillet, P., "Carrier Bidding Behavior and Market Performance in Competitive Online Virtual Freight Marketplaces Under Stochastic Demand" , *ODYSSEUS 2003: 2nd International Workshop on Freight Transportation & Logistics*, Palermo, Sicily, June 1-4, 2003.
- Mahmassani, HS., invited plenary speaker, "Hybrid Operational Strategies for Stochastic Dynamic Transportation Systems: Application to Real-time Trucking Fleet Management " , *ODYSSEUS 2003: Second International Workshop on Freight Transportation and Logistics*, Palermo, Sicily, June 2, 2003.
- Figliozzi, M., Mahmassani, H.S., and Jaillet, P., "Modeling Carrier Behavior in Sequential Auction Transportation Markets", *10th International Association of Travel Behaviour Research IATBR Conference*, Lucerne, Switzerland, July 2003.
- Mahmassani, HS., Abdelghany, A., Abdelghany, K., Al-Gadhi, S. "A Micro-Simulation Assignment Model for Multidirectional Pedestrian Movement in Congested Areas" , *International Conference on Traffic and Granular Flow 03*, Delft, Holland, October 2003.

- Figliozzi, M., Mahmassani, H.S., and Jaillet, P., "Competitive Performance Assessment of Dynamic Vehicle Routing Technologies using Sequential Auctions", INFORMS ATLANTA, October 2003.
- Tavana, H. and Mahmassani, H.S., "Rolling-Horizon Dynamic OD-Flow Estimation using ITS Data for Dynamic Traffic Assignment", INFORMS ATLANTA, October 2003.
- Mahmassani, H.S., Abdelghany, A., Abdelghany, K. "Micro-Assignment of Activity-Based Travel Demand in Intermodal Transportation Networks", INFORMS ATLANTA, October 2003.
- Murray-Tuite, P. and Mahmassani, H.S., "A Bi-Level Formulation for Vulnerable Link Identification in a Transportation Network and ITS Application", INFORMS ATLANTA, October 2003.
- Mahmassani, H.S., Lieu, H. and Sbayti, H. "Application of Dynamic Traffic Assignment Methodology for Homeland Security Emergencies", INFORMS ATLANTA, October 2003.
- Abdelghany, A., Abdelghany, K., Mahmassani, HS, Al-Gadhi, S. "A Simulation Model of Pedestrian Movement in Crowds: Application to Pilgrimage in Makkah", INFORMS ATLANTA, October 2003.
- Mahmassani, HS. "Hybrid Operational Strategies for Real-time Fleet Management: Application to Load Assignment and Sequencing in Truckload Trucking". Invited Lecture at Centre de Recherche sur les Transports, Universite de Montreal, Canada, February 2004.
- Mahmassani, HS. "Intelligent Transportation Systems: A Vision in Progress". Invited Keynote Plenary Lecture at the *Second Gulf Conference on Roads*. Abu Dhabi, United Arab Emirates, March 15, 2004.
- Mahmassani, HS. "Application of a Real-Time Dynamic Traffic Assignment-Simulation Model System For Intelligent Network Traffic Management". *Sustainable Reliable Urban Accessibility Sino-Netherlands Seminar*, Beijing, China, 24-25 May, 2004.
- Chen, R., Mahmassani, H.S. "A Queuing Model of Activity Scheduling", *EIRASS Conference on Progress in Activity-Based Analysis*, Vaeshartelt Castle, Maastricht, The Netherlands, May 2004.
- Mahmassani, HS. "New Paradigms in Information Technology and Transport Systems". Invited Keynote Plenary Lecture, *TRANSTEC Transport Science and Technology Congress*, Athens, Greece, September 1-5, 2004.
- Mahmassani, HS. "Real-time Information and Telemobility: Evolving Perspectives on Transportation Systems Operation and Planning". *XIII Panamerican Conference*, Albany, NY. September 26-29, 2004.
- Mahmassani, HS., Lu, C.C., Zhou, X. "Reoptimization Algorithms for the Shortest Path Problem with Stochastic Value of Time: Application to Dynamic Road Pricing Evaluation in Urban Transportation Networks", INFORMS DENVER, November 2004.
- Giesen, R., Jaillet, P., and Mahmassani, HS. "Strategies for the Online Inventory Routing Problem under Real-time Information", INFORMS DENVER, November 2004.
- Eisenman, S. and Mahmassani, HS. "Mesoscopic Simulation of Roundabouts in Dynamic Network Assignment Applications", INFORMS DENVER, November 2004.
- Mahmassani, HS. « Un Systeme D'estimation et de Prevision du Trafic en Temps Reel pour la Gestion Intelligente Des Reseaux » *2eme Seminaire ITS-Telematique*, EPFL-LAVOC, Lausanne. November 2004 (presented in French).
- Mahmassani, HS. "Real-time Estimation and Prediction for Intelligent Transportation Network Management". Invited seminar lecture, University of Rome La Sapienza, Rome, Italy. December 2004.
- Mahmassani, HS. . "Linking Youth Telemobility to Future Travel and Activity Engagement Behavior". Invited presentation and panel discussion in special conference session titled "Implications of Information and Communications Technologies for the Travel Behavior of Teens: What Does the

- Future Hold?". Jointly Sponsored by the Telecommunications and Travel Behavior, and Traveler Behavior and Values Committees at the *84th Annual Meeting of the Transportation Research Board*, Washington, D.C. January 2005.
- Mahmassani, HS., "Introduction to Simulation-Based DTA with DYNASMART-P", *Workshop on ITS and Operations in Planning*, FHWA, Washington, D.C. January 13, 2005.
- Mahmassani, HS., "In Real-time, Virtually: Evolving Paradigms and Methodologies for Intelligent Transportation Systems". Invited Center for Transportation Studies Winter Luncheon 2005, University of Minnesota, February 10, 2005.
- Mahmassani, HS., "Dynamic Traffic Assignment Methods for Real-Time Estimation and Prediction for Intelligent Transportation Systems", Seminar at the Pennsylvania Transportation Institute, Pennsylvania State University, February 22, 2005.
- Mahmassani, HS., "Advances in Analysis and Modeling of Consumer Choice Dynamics and Agent Behavior in Competitive Settings", Invited Lecture at NTT Labs, Musachino-Shi, Tokyo, Japan, March 25, 2005.
- Mahmassani, HS. "Real-Time Information, Learning and Decision-Making: Carrier Bidding Strategies in Sequential Auction Marketplaces for Freight Procurement". Invited seminar, Center for Transportation and Logistics, MIT, April 22, 2005
- Mahmassani, HS and Zhou, X. "Transportation System Intelligence: Performance Measurement and Real-Time Traffic Estimation and Prediction in a Day-to-Day Learning Framework". Invited plenary speaker, *Symposium on Systems, Control and Networks: In Honor of Professor Pravin Varaiya on his 65th Birthday*, Berkeley, CA. June 5-7, 2005.
- Mahmassani, HS., Erdogan, S. and Lu, J. "Evaluation of Road Pricing Schemes for Transportation System Management". Invited Brown Bag Luncheon seminar series, The World Bank, Washington, D.C., August 29, 2005.
- Mahmassani, HS. "[Beyond Equilibrium: User Adjustment Processes and Day-to-Day Dynamics](#)". Invited presentation in special session in honor of the 50th Anniversary of *Studies in the Economics of Transportation*, INFORMS SAN FRANCISCO, November 2005.
- Nagurney, A., Boyce, D. and Mahmassani, HS. "A Retrospective on Beckmann, McGuire and Winsten's Studies in the Economics of Transportation". Special session in honor of the 50th Anniversary of *Studies in the Economics of Transportation*, INFORMS SAN FRANCISCO, November 2005.
- Chen, R. and Mahmassani, HS. "Properties of Traffic Equilibria through Multi-Agent Simulation of Day-to-Day Route Choice". INFORMS SAN FRANCISCO, November 2005.
- Eisenman, S. and Mahmassani, HS. "Strategies for Integrated Real-time Signal Control and Dynamic Vehicle Route Assignment". INFORMS SAN FRANCISCO, November 2005.
- Mahmassani, HS. "Network Vulnerability, Travel Time Reliability and Robustness of Traffic Management Strategies". Invited Speaker, *International Workshop on Urban Road Network Reliability*, Beijing, China, December 19-20, 2005.
- Mahmassani, HS. "Cell Phones and Travel Behavior: Implications for Travel Surveys". Invited panelist, *85th Annual Meeting of the Transportation Research Board*, Washington, DC, January 2006.
- Mahmassani, HS. "Probing the Probes: Perspectives on Personal Information Systems Through Wireless Technologies". Invited speaker, *85th Annual Meeting of the Transportation Research Board*, Washington, DC, January 2006.
- Mahmassani, HS. "Transportation Network Modeling for Predicting Emission Impacts of Traffic and Travel Management Policies", Invited presentation. *EMBARQ Workshop*, World Resources Institute, Washington, D.C., January 20, 2006
- Mahmassani, HS. "Network Models to Support Integrated Corridor Management Strategies". Invited Keynote Plenary Lecture at the *Third Gulf Conference on Roads*. Oman, March, 2006.

- Mahmassani, HS. "Evaluation of Road Pricing Schemes". Invited speaker, *Transport Forum 2006*. The World Bank, Washington, D.C., March 29, 2006
- Mahmassani, HS. "*What if it Breaks Again? Dynamic Network Models to Support Robust System Operations: Network Vulnerability, Reliability and Staged Evacuation Strategies*". Invited seminar, Department of Civil and Environmental Engineering, Louisiana State University, Baton Rouge, LA., April 17, 2006.
- Mahmassani, HS. "Virtually There: Evolving Perspectives on Telemobility and Intelligent Transportation Systems". Invited plenary speaker, *FEA Conference 2006*, American University of Beirut, Lebanon, May 18, 2006 (delivered in conjunction with Distinguished Alumnus Award presentation).
- Giesen, R., Mahmassani, HS., and Jaillet, P. "Real-Time Strategies for the Online Inventory Routing Problem", *ODYSSEUS 2006: Third International Workshop on Freight Transportation and Logistics*, Altea, Spain, May 24, 2006.
- Mahmassani, HS. "Intelligent Transportation Systems: A 15-year Retrospective and Looking Ahead". Invited seminar speaker, *Transportation Studies Unit*, American University of Beirut, Lebanon, May 26, 2006.
- Mahmassani, HS. "Network Vulnerability, Reliability and Staged Evacuation Strategies". Invited seminar speaker, Civil and Environmental Engineering Dept., American University of Beirut, Lebanon, June 6, 2006.
- Mahmassani, HS. "Repeated Auction Games and Learning Dynamics in Electronic Logistics Marketplaces: Regulation through Information", invited speaker, *Potentials of Complexity Science for Business, Governments and the Media*, Collegium Budapest, August 3-5, 2006.
- Mahmassani, HS. "Dynamic Pricing, Real-time Information and Travel Time Reliability: Advances in Dynamic Network Assignment Models and Application to Multimodal System Management" invited plenary speaker, Transport Workshop, Santiago de Chile, August 7-11 2006.
- Mahmassani, HS. "Learning from Interactive Experiments: Travel Behavior and Complex System Dynamics", Invited Resource paper for Experimental Approaches Workshop, *11th International Association of Travel Behaviour Research Conference (IATBR 2006)*, Kyoto, Japan, August 16-20, 2006.
- Min, Y. and Mahmassani, HS. "Dynamic Strategy Choice Behavior Under Competitive Environment: Application To Electronic Freight Auction Marketplaces", *11th International Association of Travel Behaviour Research Conference (IATBR 2006)*, Kyoto, Japan, August 16-20, 2006.
- Chen, R. and Mahmassani, HS. "Learning and Risk Attitudes in Route Choice Dynamics", *11th International Association of Travel Behaviour Research Conference (IATBR 2006)*, Kyoto, Japan, August 16-20, 2006.
- Mahmassani, HS. "Intelligent Transportation Systems and Emergency Evacuation Planning and Management". Invited keynote speaker, *IEEE ITSC 2006 Conference*, Toronto, Canada, September 18, 2006.
- Mahmassani, HS., Giesen, R., and Jaillet, P. "Logistics in Real-Time: Inventory Routing Operations Under Stochastic Demand" *IWDL '06: International Workshop on Distribution and Logistics*, Brescia, Italy, October 4, 2006.
- Mahmassani, HS. "Opportunity Costs, Dynamic Pricing and Real-time Vehicle Routing in Sequential Auction Marketplaces for Freight Procurement", *Clarence W. Tow Lecture*, Tippie College of Business, University of Iowa, October 27, 2006.
- Mahmassani, HS., Dong, J., Lu, C-C and Zhang, K. "Dynamic Simulation Assignment Model for Intermodal Multi Product Freight Transportation", *INFORMS PITTSBURGH*, November 5-8, 2006.
- Figliozzi, M., Mahmassani, H.S., and Jaillet, P. "Pricing in Dynamic Vehicle Routing Problems in an Auction Setting", *INFORMS PITTSBURGH*, November 5-8, 2006.

- Mahmassani, HS. "Integrating Activity-based Demand and Network Assignment Models", invited panelist, INFORMS PITTSBURGH, November 5-8, 2006.
- Giesen, R., Mahmassani, HS., and Jaillet, P. "Real-Time Complete Reoptimization Strategies for the Online Inventory Routing Problem", INFORMS PITTSBURGH, November 5-8, 2006.
- Mahmassani, HS. "Intelligent Transportation Systems: In Perspective and Looking Ahead". Invited keynote speaker, *First ITS Middle East Conference*, Dubai, UAE, December 4-5, 2006.
- Kozuki, A. and Mahmassani, HS. "Who is in Charge? A Framework for Inter-jurisdictional Collaborative Decision Making for Transportation Systems Operations". *86th Annual Meeting of the Transportation Research Board*, Washington, DC, January 2007.
- Mahmassani, HS. "Integrating Activity-based Demand and Network Assignment Models", Invited panelist in workshop session, *86th Annual Meeting of the Transportation Research Board*, Washington, DC, January 2007.
- Mahmassani, HS. Invited panelist in session on "Major Disruptions to Personal Travel: Behavioral Responses and the Role of Telecommunications", *86th Annual Meeting of the Transportation Research Board*, Washington, DC, January 2007.
- Mahmassani, HS. "Transport Sector Planning in Greater Beirut, Lebanon". Invited presentation at conference on *Transforming Transportation Institutions*, The World Bank and WRI/EMBARQ Washington, DC. January 25-26, 2007.
- Mahmassani, HS. "Traffic Flow Modeling with Real-time Data for On-line Network Traffic Estimation and Prediction". Invited seminar presentation, TRAIL, TU-Delft, the Netherlands, Jan. 30, 2007.
- Mahmassani, HS. "Intelligent Transportation Solutions for Sustainable City Logistics: Issues and Prospects". Invited Keynote Presentation, *First International City Logistics Expo*, Padova, Italy, April 18-27, 2007
- Mahmassani, HS. "Advances in Network Assignment Models for Real-Time System Management: Application to Dynamic Pricing and Integrated Corridor Management", Invited seminar speaker, University of Illinois, Urbana-Champaign, April 30, 2007.
- Lu, C.C. and Mahmassani, HS. "Heterogeneous Users and Variable Road Pricing: Model and Algorithm for the Bi-Criterion Dynamic User Equilibrium Problem on Large Networks", TRISTAN VI: Sixth Triennial Symposium on Transportation Analysis, Phuket Island, Thailand, June 10-15, 2007.
- Mahmassani, HS. "Integrating Behavior in Network Models: Multi-Criterion Dynamic User Equilibrium for Road Pricing Applications with Heterogeneous Users", Invited Presentation, *Travel Behavior Symposium in honor of Frank Koppelman*, Northwestern University, Evanston, June 22, 2007
- Miller-Hooks, E., Mahmassani, HS., Arcot, VC., Kozuki, A., Kuo, A., Lu, C-C., Nair, R., and Zhang, K. "Assessing Service Design Options And Strategies For Overcoming Barriers In The REORIENT Intermodal Freight Transport Corridor", *European Transport Conference*, Leeuwenhorst conference centre, The Netherlands, October 17-19, 2007.
- Lu, C.C. and Mahmassani, HS. "Gap-driven Algorithms for the Dynamic User Equilibrium Problem on Large Networks", INFORMS SEATTLE, November 4-7, 2007.
- Mahmassani, HS., Arcot, V., Dong, J., Kuo, A., Lu, C.-C., Miller-Hooks, E., Nair, R, and Zhang, K. "Intermodal Freight DTA Platform: Application to Evaluation of New Services in European Corridor", INFORMS SEATTLE, November 4-7, 2007.
- Lu, C.C. and Mahmassani, HS. "Multi-criterion Dynamic User Equilibrium for Road Pricing Applications with Heterogeneous Users", INFORMS SEATTLE, November 4-7, 2007.
- Dong, J., Mahmassani, HS. , Erdogan, S. and Lu, C.-C. "Online DTA and Anticipatory Pricing for Real-time Traffic Management", INFORMS SEATTLE, November 4-7, 2007.

- Mahmassani, HS. "Dynamic Pricing, Managed Lanes and Integrated Corridor Management: Challenges for Advanced Network Modeling Methodologies", Invited Speaker, *GTI Seminar Series*, Georgia Institute of Technology, November 16, 2007.
- Mahmassani, HS. "Fueling the Debate: Network Modeling, Behavior Change, and Intelligent Transportation Solutions to Support Transportation Decision-Making Policies", *Symposium on Energy and Sustainability*, Northwestern University, December 3, 2007.
- Mahmassani, HS., Miller-Hooks, E., Nair, R., Zhang, K., Arcot, VC., Dong, J., Kozuki, A. and Ludvigsen, J. "The Greening of Freight in Europe: Assessing the Market Potential of New Services and Lower Barriers Using a Dynamic Intermodal Simulation Assignment Methodology", *2nd Annual National Freight Conference*, Long Beach, CA., 5 December 2007.
- Hamdar, SH. and Mahmassani, HS. "Driver Car-Following Behavior: From Discrete Event Process to Continuous Set of Episodes". *87th Annual Meeting of the Transportation Research Board*, Washington, DC, January 2008.
- Fei, X. and Mahmassani, HS. "Two-Stage Stochastic Model for Sensor Location Problem in a Large-Scale Network". *87th Annual Meeting of the Transportation Research Board*, Washington, DC, January 2008.
- Mahmassani, HS. "Integrating User Responses to Pricing in Dynamic Network Micro-Assignment Models", Invited speaker, *IGERT Program on Computational Transportation Science*, University of Illinois at Chicago, February 7, 2008.
- Mahmassani, HS. "Congestion Management in a Rapidly Growing Economy: Optimizing Transportation Network Performance", Invited Speaker, *MTTBR 2008: 1st Mass Transit and Travel Behavior Research Conference*, Indo-US Science and Technology Forum, IIT -Guwahati, India, February 12-15, 2008.
- Mahmassani, HS. "Predictive Strategies for Real-Time Pricing, Information and Traffic/Access Controls", Invited Seminar speaker, *University Transportation Research Center, Region II*, Manhattan, NY, February 22, 2008.
- Mahmassani, HS. "Transportation Network Models", Invited tutorial, *2008 INFORMS Conference on Practice*, Baltimore, MD, April 13-15, 2008.
- Mahmassani, HS. "Regime Change: Uncongesting Traffic Flow Through Dynamic Pricing and Real-Time Information", Invited Speaker, *NEXTRANS Seminar Series*, Purdue University, April 22, 2008.
- Mahmassani, HS., "Developments in Intelligent Transportation Systems Research and Applications" , Invited Keynote Presentation, *CILT International Conference 2008, 40th anniversary of the Chartered Institute of Logistics and Transportation (CILT)*, Hong Kong, China, May 26-31, 2008.
- Zhang, K. and Mahmassani, HS., "Integrated Multimodal Urban Corridor Management: The Potential Role of Bus Rapid Transit", *Transport Chicago*, June 6, 2008.
- Mahmassani, HS, "Integrating Activity-Travel Decisions in Dynamic Network Micro-Assignment Models", *Innovations in Travel Demand Forecasting 2008*, Portland, OR., June 22-24, 2008.
- Mahmassani, HS and Qin, X. "Adaptive Estimation of Speed-Density Relations for Online Network Traffic Prediction", *Symposium on The Fundamental Diagram: 75 Years (Greenshields 75 Symposium)*, Woods Hole, MA, July 8-10, 2008.
- Mahmassani, HS. and Hamdar, SH. "Modeling Driver Behavior as a Hazard-Based Risk-Taking Process", Invited Lecture, *Recent Developments in Microscopic Traffic Simulation Master class*, TU Delft and TRAIL, September 16, 2008.
- Mahmassani, HS, "Dynamic Network Micro-Assignment with Heterogeneous Users", Invited Speaker, *Institut für Verkehrsplanung und Transportsysteme*, ETH Zürich, October 7, 2008.
- Dong, J. and Mahmassani, HS., "Dynamic Pricing with Heterogeneous Users", *INFORMS Annual Meeting*, Washington, DC, October 2008.

- Mahmassani, HS., "Pushing the Envelope: Transportation System Management Under Competing Objectives", Invited Keynote Presentation, *IGCR 08 4th International Gulf Conference on Roads*, Doha, Qatar, November 10-13, 2008.
- Mahmassani, HS., "Improving Travel Reliability Through Predictive Traveler Information", Invited Seminar, *National Taiwan University*, Taipei, Taiwan, R.O.C., December 3, 2008.
- Mahmassani, HS., "Pushing the Envelope: Managing Transportation Systems Under Competing Objectives", Invited Keynote Presentation, *CIT 2008 International Conference and Annual Meeting of Chinese Institute of Transportation*, Kaohsiung City, Taiwan, R.O.C, December 4, 2008.
- Mahmassani, HS., "Time In Motion: Towards Productive And Successful Scholarship Through Tenure and Beyond", Invited Seminar, *Department of Transportation Management, Cheng-Kung University*, Taiwan, R.O.C., December 5, 2008.
- Mahmassani, HS., "Crowd Dynamics and Management", Briefing to Secretary of the US Army and agency officers in charge of Inauguration of President Obama, US Dept. of Defense, January 6, 2009; also presented at Dept. of Homeland Security on January 13, 2009.
- Mahmassani, HS., "Technology-Assisted Behavior Change: Towards Sustainable and Energy-Efficient Transportation", *Argonne-Northwestern Joint Seminar on Energy and Transportation*, Northwestern University, March 17, 2009.
- Mahmassani, HS., "Reliability, Information and Pricing through Prediction: The Missing Intelligence in ITS", Invited Keynote Presentation, *Models and Technologies for Intelligent Transportation Systems*, Sapienza Università di Roma, 22-23 June 2009.
- Mahmassani, HS. "Evacuation Plan Design: Objectives, Formulations and Algorithms", Invited Keynote Presentation, *1st International Conference on Evacuation Modeling (ICEM 2009)*, Scheveningen, Netherlands, September 23-25, 2009.
- Fei, X., Murray, Tuite, P. and Mahmassani, HS., "Developing a Dynamic Real-Time Feedback Control System for Traffic Management Center Decision Support in Emergency Evacuation with Heterogeneous Evacuees", *1st International Conference on Evacuation Modeling (ICEM 2009)*, Scheveningen, Netherlands, September 23-25, 2009.
- Mahmassani, HS. "Transportation System Intelligence: The Promise and Continuing Opportunities", Invited presentation at *Advancing Canada's Competitive Advantage: A National Forum on Management*, Montreal, CA, October 1 2009.
- Mahmassani, HS., "Green Logistics: Assessment of Freight Market Shifts Using A Dynamic Intermodal Network Analysis Methodology", Invited Seminar, CIRRELT, Montreal, CA, October 2, 2009.
- Mahmassani, HS. and Hamdar, SH., "Risk Perception in Highway Driving: From Prospect Theory to Operational Driver Behavior Models", Invited presentation at *Workshop on Prospect Theory and Heterogeneity in Choice Behaviour Strategies*, Town Hall Delft, NL., October 8, 2009.
- Dong, J. and Mahmassani, HS., "Optimal Road Pricing In a Stochastic Dynamic Environment", Invited presentation, INFORMS Annual Meeting, San Diego, October 12, 2009.
- Dong, J. and Mahmassani, HS., "Consistent Anticipatory Congestion Pricing: An Iterative Algorithm for Online Application", INFORMS Annual Meeting, San Diego, October 12, 2009.
- Mahmassani, HS., Jiang, L. and Lu, C.-C., "Large Network Application of Bi-criterion Dynamic Traffic Assignment Model with Heterogeneous Users", INFORMS Annual Meeting, San Diego, October 13, 2009.
- Mahmassani, HS., "Towards Sustainable Freight Transport: Perspectives From Europe", *3rd Annual Lipinski Transportation Forum*, Evanston, IL., November 2, 2009.

- Mahmassani, HS., "Learning, Information and Risk in User Adjustment Processes: Role of Behavior Experiments", Invited presentation at *Workshop on Day-to-day Dynamics in Transportation Networks*, Salerno, Italy, December 2009.
- Mahmassani, HS., "Transportation System Intelligence: The Role of Prediction", NAVTEQ-NUTC Workshop, December 18, 2009.
- Mahmassani, HS., "Time, space and the pursuit of wisdom: Continuing the conversation", comments delivered at special session in memory of Ryuichi Kitamura at the 89th TRB Annual Meeting, Washington, DC., January 2010.
- Mahmassani, HS., "Integrating Reliability Performance Measures in Operations and Planning Modeling Tools", invited presentation, 89th TRB Annual Meeting, Washington, DC., January 2010.
- Mahmassani, HS., "Concluding Comments: Some thoughts on network design in practice", *Symposium on Transportation Network Design and Economics (in honor of Martin Beckmann)*, Transportation Center, Northwestern, Evanston, IL, January 29, 2010.
- Mahmassani, HS., "Transportation System Intelligence: How to Deliver on The Power of Information", *Chicago City Hall*, February 17, 2010.
- Mahmassani, HS., "Traffic Jams, Crowds, and Human Behavior", *Science Café*, Evanston, IL., February 17, 2010.
- Mahmassani, HS., "Green Logistics: Assessment of Freight Market Shifts Using a Dynamic Intermodal Network Analysis Methodology", invited Seminar, *Department of Management of Technology & Innovation, Rotterdam School of Management, Erasmus University*, Rotterdam, NL February 22, 2010.
- Chen, R., Mahmassani, HS., Huang, Y. and Contractor, N. "Can Parallel Worlds Converge? Time Use and Activity Engagement in Virtual and Physical Environments", *2nd Workshop on Time Use Observatory (TUO2)*, Termas Jahuel, Chile, March 15-17, 2010.
- Mahmassani, HS., "Network Models and Transportation System Intelligence: Challenges and Opportunities", Invited plenary presentation, *Transport and Crowd Management Forum 2010*, Hajj Research Institute, Jeddah, KSA, May 2, 2010.
- Mahmassani, HS., "Developments in Integrated Modeling of Activity-Travel Demand and Dynamic Network Flows", Invited plenary presentation, *3rd TRB Conference on Innovations in Travel Modeling*, Tempe, AZ, May 11, 2010.
- Mahmassani, HS., "Predictive strategies for online traffic system management: the missing intelligence". Invited seminar, *Institute of Transportation Studies, University of California, Irvine*, May 28, 2010.
- Mahmassani, HS., "Traffic Jams, Crowds, and Human Behavior", invited speaker at *Murphy Scholars Dinner*, Northwestern University, Evanston, IL., June 1, 2010.
- Mahmassani, HS., "Taming Volatility in the Route Market: The Case for Intelligence", invited keynote presentation at the *NSF Workshop on Dynamic Route Guidance and Coordinated Traffic Control*, Rutgers, June 7, 2010.
- Zhang, K., Mahmassani, HS. And Lu, C.-C., "Dynamic Pricing, Heterogeneous Users and Perception Error: Bi-Criterion Dynamic Stochastic User Equilibrium Assignment", *TRISTAN VII: Seventh Triennial Symposium on Transportation Analysis*, Tromsø, Norway, June 21, 2010.
- Mahmassani, HS., "Traffic Simulation Models: Practice Makes Perfect", invited panel presentation at the *TRB-INRETS joint conference on Does Traffic Data Support Traffic Models?* Annecy, France, July 7, 2010.
- Dong, J. and Mahmassani, HS., "Online Dynamic Traffic Assignment Model and its Application to Anticipatory Traffic Management" *The Third International Symposium on Dynamic Traffic Assignment (DTA 2010)*, Gifu, Japan, July 29, 2010.

- Mahmassani, HS. and Sbayti, H., "Algorithmic Aspects of Optimal Evacuation Planning and Scheduling Models" *IEEE Intelligent Transportation Systems Conference (ITSC 2011)*, Madeira, Portugal, September 20, 2010.
- Mahmassani, HS., "Enhancing the User Experience: Technologies for Connectivity and Reliability", *4th Annual Lipinski Transportation Forum*, Evanston, IL., November 8, 2010.
- Mahmassani, HS., "Integrating Heterogeneous User Responses to Pricing and Reliability in Dynamic Network Models for Large-scale Planning Applications", *Warren Lecture*, University of Minnesota, Minneapolis, MN., November 19, 2010.
- Mahmassani, HS., "Overview of International Transport Research Practices", *1st RTRC Stakeholder Workshop*, Ministry of Transport, Riyadh, Saudi Arabia, December 7, 2010.
- Mahmassani, HS. "Transportation System Intelligence: The Role of Prediction", NUTC Workshop with Traffic Cast Inc., Evanston, IL., January 17 2011.
- Mahmassani, HS., Stogios, Y. and Vovsha, P. "Incorporating Reliability Performance Measures in Operations and Planning Modeling Tools", invited presentation, 90th TRB Annual Meeting, Washington, DC., January 2011.
- Mahmassani, HS. "Impact of Information on Traveler Decisions", invited presentation, 90th TRB Annual Meeting, Washington, DC., January 2011.
- Mahmassani, HS., Stogios, Y. and Vovsha, P. "Incorporating Reliability Performance Measures in Operations and Planning Modeling Tools: Application Opportunities", *Strategic Highway Research Program II Workshop*, Irvine, CA, March 3 2011
- Mahmassani, HS., "Connecting the DOTS: Telemobility, Virtual Social Networks and Implications for Travel and Activity Patterns", Invited keynote presentation, *Workshop on Sustainable Human Settlements with Instant and Ubiquitous Access Technologies*, University of Illinois at Urbana-Champaign, March 11, 2011.
- Mahmassani, HS., "Traffic Data, System Intelligence and Network Operations: Opportunities and Continuing Challenges", Invited keynote presentation, *Transportation Infrastructures and Traffic of the Future (TITF) Workshop*, King Faisal University, Al-Ahsa, Saudi Arabia, April 17, 2011.
- Mahmassani, HS., "Incorporating Travel Time Reliability, Congestion Pricing, and User Heterogeneity in Dynamic User Equilibrium Algorithms for Large-Scale Networks", Invited keynote presentation, *ICSSM 2011: 1st IEEE International Conference on Supernetworks and Systems Management*, Shanghai, China, May 29, 2011.
- Mahmassani, HS., "Traffic Simulation Considerations for Active Predictive System Management", *Active Transportation Demand Management Workshop- ISTTT 19*, Berkeley, CA, July 2011.
- Mahmassani, HS., "Analysis of Network and Non-Network Impacts upon Traveler Choice: Improve Modeling Accuracy for Better Transportation Decision Making", presentation to operations research group, Turner-Fairbanks Laboratory, Federal Highway Administration, US DOT, McLean, VA. July 25, 2011.
- Mahmassani, HS., "Application to the New York Metropolitan Region of an Integrated Model of User Responses to Pricing and Reliability with a State of the Art Simulation-Based Dynamic Traffic Assignment Tool", invited presentation to the *New York Metropolitan Transportation Commission*, New York City, New York, August 10, 2011.
- Mahmassani, HS., "Dynamic Modeling of Transport Networks for Large-Scale Applications -- Reliability, Pricing, Weather, and Traveler Heterogeneity", invited presentation, Kittelson Associates International, Portland, OR, August 24, 2011.
- Mahmassani, HS., "High Speed Rail: Demand for Speed and Regional Mobility", invited presentation, *Chicago Council on Science and Technology*, Chicago, IL, September 13, 2011

- Mahmassani, HS., "Implementation and Evaluation of Weather Responsive Traffic Estimation and Prediction System", invited presentation, *Traffic Management Center Operators Workshop*, FHWA, US DOT, Portland, OR, October 5, 2011.
- Mahmassani, HS., "Overview of the Proposed Strategy for the Road and Transport Research Center", 2nd *RTRC Stakeholder Workshop*, Ministry of Transport, Riyadh, Saudi Arabia, October 11, 2011.
- Mahmassani, HS. and Alibabai, H. "Properties of Simulated Path Travel Times and Implications for Dynamic Network Assignment and Control Algorithms", invited speaker at NSF-funded *International Workshop on Mathematics of Traffic Flow Modeling, Estimation and Control*, Institute for Pure and Applied Mathematics, UCLA, Los Angeles, CA, December 7-9, 2011.
- Frei, C. and Mahmassani, HS. "Private Time on Public Transit: Dimensions of Information and Telecommunication Use of Chicago Transit Riders", *The Third Workshop on Time Use Observatory (TUO 3)*, Santiago, Chile, March 21-23, 2012.
- Frei, A. and Mahmassani, HS. "Synchronized Patterns of Time Use and Activities in Virtual Worlds", *The Third Workshop on Time Use Observatory (TUO 3)*, Santiago, Chile, March 21-23, 2012.
- Saberi, M. and Mahmassani, HS. "Capacity Drop Phenomena in Urban Networks", *Symposium on Innovations in Traffic Flow Theory, and Highway Capacity and Quality of Service*, Ft. Lauderdale, FL., June 14-16, 2012.
- Talebpoor, A., Mahmassani, HS. and Hamdar, S. "Speed Harmonization: Effectiveness Evaluation under Congested Conditions Using Microsimulation", *Symposium on Innovations in Traffic Flow Theory, and Highway Capacity and Quality of Service*, Ft. Lauderdale, FL., June 14-16, 2012.
- Verbas, O. and Mahmassani, HS. "Optimal Bus Frequency Allocation in a Large-Scale Urban System" *EURO 25 Conference*, Vilnius, Lithuania, July 2012.
- Mahmassani, HS., Zockaie, A. and Saberi, M. "Development, Calibration and Application of Simulation-Based Dynamic Traffic Assignment to Greater Chicago Network Using DYNASMART-P", invited presentation at *CMAP Workshop on Advanced Modeling*, Chicago, IL., August 24, 2012.
- Saberi, M. and Mahmassani, HS. "Network Capacity, Traffic Instability and Adaptive Driving", 1st *European Symposium on Quantitative Methods in Transportation Systems*, Lausanne, Switzerland, September 4-6, 2012.
- Mahmassani, HS. "Travel Time Reliability: A Network-level Perspective", Invited Keynote presentation at 1st *European Symposium on Quantitative Methods in Transportation Systems*, Lausanne, Switzerland, September 4-6, 2012.
- Mahmassani, HS., "Intermodal Bottlenecks and Green Logistics: Strategic Impact of Operational Interventions Using a Dynamic Intermodal Network Analysis Methodology", invited presentation, *Colloquium Manheim 2012*, Universiteit Antwerpen, Belgium, October 4-6, 2012.
- Mahmassani, HS. "Reinventing the User Experience in Transportation: Best Practices and Strategies through Technology and Design Thinking", Invited presentation University of Minnesota Center for Transportation Studies 25th Anniversary, Minneapolis, MN., October 11, 2012.
- Mahmassani, HS. "BEYOND THE DATA: Extracting Knowledge, Deriving Insight, Delivering Intelligence", *NUTC Industry Workshop on Data-Driven Business*, Evanston, IL., October 2012.
- Mahmassani, HS. and Jiang, L., "City Logistics: Integrating Dynamic Fleet Management With Travel Time Prediction in Large-Scale Networks", invited presentation Rensselaer Polytechnic Institute, November 28, 2012.
- Mahmassani, HS. "Social, Personal, Green, and Mobile: Expanding Boundaries for Traveler Information", Invited presentation at workshop on *Impact of Information on Decisions, Choices, and Behaviors of Travelers*, 92nd Annual TRB Meeting, Washington, DC., January 13, 2013.

- Mahmassani, HS and Frei, A., "Leveraging Emerging Technologies: Blurring of Boundaries between Laboratory and Field Environments", invited presentation at workshop on *New Perspectives in Stated-Response*, 92nd Annual TRB Meeting, Washington, DC, January 13, 2013.
- Mahmassani, HS, Kim, J., Zockaie, A. and Alfelor, R., "Real-time Road Weather Modeling Case Studies: Implementation and Evaluation of Weather Responsive TrEPS", TRB Simulation Workshop, 92nd Annual TRB Meeting, Washington, DC, January 13, 2013.
- Mahmassani, HS. "Travel Time Reliability: Network-level Characterization and System Management Implications", Invited for CEE Distinguished Speaker Series, Florida International University, Miami, FL., March 8, 2013 (Webcast by the TRB Traffic Flow Theory and Characteristics Committee at <https://connect.fiu.edu/p45xw10whu8/>).
- Mahmassani, HS. "Beyond the Data: Extracting Knowledge, Deriving Insight, Delivering Intelligence—the Role of Dynamic Models", invited participant and speaker, *University of Maryland Seminar on Dynamic Models in Transportation*, College Park, January 2013.
- Mahmassani, HS. "[Leveraging Sensor Technologies for Smarter Mobility](#)", *NUTC Industry Workshop on Smarter Cities/Smarter Mobility*, Evanston, IL., April 24, 2013.
- Mahmassani, HS. "Integrating Heterogeneous User Preferences and Reliability Valuation in Dynamic Network Models for Forecasting Toll Revenues in Large-Scale Network Applications", Invited presentation, *International Transport Forum Special Session on Demand Forecasting in Action*, 2013 International Conference of the International Transportation Economics Association, Chicago, IL., July 12 2013.
- Mahmassani, HS. and Jiang, L. "City Logistics: Predictive Analytics for Real-time Freight Management in Large-scale Networks", invited presentation at *Network Optimization Workshop 2013*, Siracusa, Italy, July 2013.
- Mahmassani, HS. "Travel Time Reliability and Network Traffic Performance", Invited presentation at *2nd International Transportation PhD Student Symposium*, Illinois Center for Transportation, Champaign, IL. September 2-3, 2013.
- Mahmassani, HS. "Modeling Travel Time Reliability and Network Traffic Performance: Selected Highlights from Recent Research" Invited presentation at Rail Applications Society, *INFORMS Annual Meeting*, Minneapolis, MN. Oct. 6, 2013.
- Mahmassani, HS., Lindsey, C., Frei, A., and Klabjan, D. "Dynamic Pricing of Shipments and Sourcing of Capacity for Third Party Logistics Providers", *5th METRANS International Freight Conference*, Long Beach, CA Oct. 8-10, 2013.
- Lindsey, C., Mahmassani, HS., Frei, A., and Klabjan, D. "Modeling Carrier Truckload Freight Rates in Spot Markets", *5th METRANS International Freight Conference*, Long Beach, CA Oct. 8-10, 2013.
- Lindsey, C., Mahmassani, HS., Mullarkey, M., Nash, T. and Rothberg, S. "Industrial Space Demand and Freight Transportation Activity", *5th METRANS International Freight Conference*, Long Beach, CA Oct. 8-10, 2013.
- Jiang, L., and Mahmassani, HS. "Freight Distribution In Congested Urban Areas: Leveraging Real-Time Information", *5th METRANS International Freight Conference*, Long Beach, CA Oct. 8-10, 2013.
- Mahmassani, HS. "Good Data Gone Bad: Missed opportunity for Smart Cities and Logistics Firms?", *TERADATA 2013 Partners Conference and Expo.*, Dallas, TX Oct. 20, 2013.
- Mahmassani, HS. "Driven By Time Windows: Predictive Strategies for Real-Time Pick-up and Delivery Operations", *NUTC Industry Workshop on The Fight for the Last Mile*, Evanston, IL., Oct. 29, 2013.
- Mahmassani, HS. "From component calibration to system prediction: or why the sum may be less than the whole", Invited presentation, *COST MULTITUDE Final Conference*, Napoli, Italy, Dec. 5, 2013.

- Mahmassani, HS. "Simulation of Crowds: A Work in Progress", Invited presentation at workshop on *Crowd Flow Dynamics, Modeling and Management*, 93rd Annual TRB Meeting, Washington, DC., January 12, 2014.
- Mahmassani, HS. "Autonomous Vehicles: Adoption Factors, Activity System Impacts", Invited presentation at workshop on *Travel Behavior Impacts of Autonomous Vehicles*, 93rd Annual TRB Meeting, Washington, DC., January 12, 2014
- Mahmassani, HS. "Travel Time Reliability and Network Traffic Performance: Selected Highlights from Recent Research", invited presentation, Transportation Seminar Series, University of California Berkeley, February 21, 2014.
- Mahmassani, HS. "[Crowd Simulation and Management: A Work in Progress](#)", Invited presentation, *Innovation in Transportation and Crowd Management Forum 2014*, Makkah, KSA, March 6, 2014.
- Mahmassani, HS. "Connected Systems, Smart Cities and Urban Mobility: Travel Behavior and Flow Modeling Research", Research presentation, *McCormick Day at Ford Research and Innovation Center*, Dearborn, MI, April 22, 2014.
- Mahmassani, HS. "Time Use in a Connected Life", Invited presentation, *Fourth Time Use Observatory Workshop (TUO 4)*, Santiago, Chile, May 8-10, 2014.
- Mahmassani, HS. "Connected Systems, Smart Cities and Urban Mobility: Realizing the Potential of User-Centered Intelligence", Invited keynote presentation, *1st National Congress and Exhibition on Intelligent Transport Systems for Highways*, Istanbul, Turkey, May 26, 2014.
- Mahmassani, HS. "Trajectories in 3D: Unifying Model Calibration and Network Performance Analysis", Invited keynote presentation, *International Symposium on Transport Simulation and Workshop on Traffic Data Collection and its Standardization*, Ajaccio, Corsica (France), June 2, 2014.
- Mahmassani, HS. "Autonomous Vehicles, Connected Systems and Market Adoption Factors", *NUTC Industry Workshop on Autonomous Vehicle Technologies for Passenger and Freight Mobility*, Evanston, IL., June 10, 2014.
- Mahmassani, HS. "After the Storm: Leveraging the Data Deluge Into System Intelligence", Invited keynote (dinner) presentation, *North American Travel Monitoring Exposition and Conference (NATMEC) 2014*, Chicago, IL, June 30, 2014.
- Mahmassani, HS. and Jiang, L., "Reliable City Logistics: Predictive Analytics for Real-Time Freight Management", invited presentation *GO IX Graphs and Optimization Colloquium*, Sirmione, Italy, July 6-10, 2014.
- Mahmassani, HS. "Autonomous Vehicles and Regional Planning Models: Technological Twist or Game Changer?", invited presentation *Autonomous Vehicles Symposium*, San Francisco, CA, July 15, 2014.
- Talebpour, A. and Mahmassani, HS. "Modeling Acceleration Behavior in A Connected Environment", *Symposium Celebrating 50 Years of Traffic Flow Theory*, Portland, OR, August 13, 2014.
- Mahmassani, HS. "Trajectories in 3D: Unifying Model Calibration And Network Performance Analysis", invited keynote presentation, *Symposium Celebrating 50 Years of Traffic Flow Theory*, Portland, OR, August 13, 2014.
- Mahmassani, HS. "Crowd Simulation and Evacuation Optimization: Theory Meets Practice", Invited keynote presentation, *7th Conference on Pedestrian and Evacuation Dynamics PED 2014*, Den Haag-Nootdorp, NL, Oct. 22-24, 2014.
- Mahmassani, HS. "Exploration of Flow Characteristics of Autonomous Vehicles and Connected Vehicle Systems in Mixed Traffic Streams", Invited Seminar, Laboratoire d'Ingénierie Circulation Transports (LICIT), IFSTTAR, Lyon, France, October 27, 2014.

- Mahmassani, HS. "Transportation Networks and Operations: From Models to Application (in a Connected World)", invited lead presentation, *NUTC 60th Anniversary Celebration: Technical Symposium*, Evanston, IL., November 13, 2014.
- Mahmassani, HS., "Travel Time Reliability and Network Traffic Performance: Recent Research Highlights", Invited Seminar, *National Chiao Tung University*, Taipei, Taiwan, R.O.C., December 3, 2014.
- Mahmassani, HS., "Rain or Shine: Moving Traffic under Severe Weather Conditions", Invited Keynote Speech, *Chinese Society of Transportation Engineers Annual Meeting*, Sun Moon Lake, Taiwan, R.O.C., December 5, 2014.
- Mahmassani, HS., "City Logistics: Predictive Analytics for Real-Time Real-Time Fleet Routing in Large Urban Networks", Invited Seminar, *National Dong Hwa University*, Hualien, Taiwan, R.O.C., December 7, 2014.
- Mahmassani, HS. "Emerging Simulation Challenges for Decision Support Systems: Information, Control, and Traveler Inertia", Invited presentation at workshop on [Using Simulation for Decision Support Systems: Past, Present, and Future](#), 94th Annual TRB Meeting, Washington, DC., January 11, 2015.
- Mahmassani, HS. "Progress Report: Leveraging the Data Deluge Into System Intelligence", The Melvin Webber Memorial Lecture, [Annual UC Connect Student Conference](#), University of California-Santa Barbara, February 29, 2015.
- Mahmassani, HS. "Autonomous Vehicles: Adoption Rates and Flow Implications in Mixed Traffic Streams", [Invited Seminar, Institute of Transportation Studies](#), University of California, Irvine, March 1, 2015.
- Chen, Y., Mahmassani, HS. and Frei, A. "Incorporating Social Media Data in Travel Choice Models: Conceptual Framework and Exploratory Analysis", International Choice Modeling Conference, Austin, TX., May 11-13, 2015.
- Mahmassani, HS. and Verbas, OI. "Multimodal Transit Networks: Least Cost Hyperpaths and Dynamic Assignment-Simulation Methodology for Large-Scale Applications", invited presentation at *Network Optimization Workshop 2015 (NOW 2015)*, La Rochelle, France, May 18-20, 2015.
- Mahmassani, HS. "[On the Traffic Dynamics of Urban Network Evacuations](#)", Invited keynote speech, *Third International Conference on Evacuation Modeling and Management, ICEM 2015*, Tainan, Taiwan, June 1-3, 2015.
- Mahmassani, HS. "Thinking Small with Big Data? Opportunities and Pitfalls for Big Data in Transportation", Invited keynote speech, *18th Euro Working Group on Transportation, EWGT 2015*, Delft, NL, 14-16 July 2015.
- Lindsey, C. and Mahmassani, HS. "Carrier Reservation Prices for Truckload Capacity on the Spot Market: A Stated Choice Experiment", *International Association of Travel Behavior Research Meeting*, Windsor, UK., July 23, 2015.
- Mahmassani, HS. "Leveraging transaction data with predictive analytics to optimize logistics performance", invited keynote presentation [2nd Interdisciplinary Conference on Production, Logistics, and Traffic \(ICPLT\)](#), TU-Dortmund, Germany, July 21-22, 2015.
- Mahmassani, HS. "Leveraging transaction data with predictive analytics to optimize logistics performance", [invited seminar](#), Inha University, S. Korea, August 26, 2015.
- Mahmassani, HS. "Disaster mitigation through large-scale evacuation: Simple insights for complex systems", invited keynote presentation, *11th Annual International Conference of the International Institute for Infrastructure Resilience and Reconstruction (I3R2)*, University of Seoul, Korea, August 27-29, 2015.
- Mahmassani, HS. "Are We There Yet? Connected/Autonomous Vehicles and the Internet of Things", *TERADATA PARTNERS 2015 Conference and Expo.*, Anaheim, CA., October 19, 2015.

- Mahmassani, HS., Hyland, M., Bou-Mjahed, L., Verbas, O, Xu, X. and Johnson, B. "Potential for a Logistics Island to Circumvent Container Port Congestion in a Constrained Environment", *2015 International Urban Freight Conference (I-NUF)*, Long Beach, CA, October 21-23, 2015.
- Mahmassani, HS. "[What is the Internet of Things, and Why Should We Care?](#)", *NUTC Industry Workshop on The Internet of Things in Transportation and Logistics*, Evanston, IL., October 27, 2015.
- Mahmassani, HS. "Autonomous Vehicles and Connected Travelers: Market Adoption and Flow Implications in Mixed Traffic Streams", Invited Seminar, Department of Civil and Environmental Engineering, *University of Toronto*, Canada, November 18, 2015.
- Mahmassani, HS. "[How to Get There from Here: Fundamental Research Opportunities in Autonomous Vehicles, Connected travelers and the Internet of Things](#)", Invited presentation, *National Science Foundation US-Morocco Workshop on Sensors and Wireless Networks for Smart Cities*, Rabat, Morocco, January 5-7, 2016.
- Mahmassani, HS. "Autonomous Vehicles and Connected Systems: Market Adoption and Flow Implications". Invited seminar, [Pierce Lab Seminar Series](#), Civil and Environmental Engineering Dept., *Massachusetts Institute of Technology*, Cambridge, MA, February 24, 2016.
- Mahmassani, HS. "Leveraging Transaction Data to Support Online Pricing and Sourcing of Carrier Capacity in the Truckload Spot Market: Models and Application". Invited seminar, CIRRELT, *Universite de Montreal*, Quebec, Canada, March 11, 2016.
- Mahmassani, HS. "Smart Cities, Connected Vehicles and the Internet of Things: Deployment Scenarios and Lessons from Intelligent Transportation Systems". Invited presentation, Transportation for [Smart Cities Symposium](#), *NYU Abu Dhabi*, Saadiyat, Abu-Dhabi, UAE, March 25-26, 2016.
- Mahmassani, HS. "Autonomous Vehicles and Connected Systems: Market Adoption and Flow Implications". Invited Seminar, Dept. of Civil and Environmental Engineering, *University of South Florida*, April 8, 2016.
- Mahmassani, HS. "Autonomous Vehicles and Connected Systems: Market Adoption and Flow Implications". Invited Seminar, National Center for Transportation Systems Productivity and Management, *Georgia Institute of Technology*, April 28, 2016.
- Mahmassani, HS. "Autonomous Vehicles and Connected Systems: Market Adoption and Flow Implications". invited keynote presentation, *16th Swiss Transport Research Conference (STRC)*, Monte Verità, Ascona, Switzerland, 18–20 May 2016.
- Mahmassani, HS. "Leveraging Transaction Data for Online Pricing and Sourcing of Carrier Capacity in the Truckload Spot Market: Models and Application". invited Seminar, *Rotterdam School of Management, Erasmus University*, June 3, 2016.
- Mahmassani, HS. "Does DTA Work in Practice? Firming the Foundations, Pushing the Boundaries". Invited keynote presentation, [6TH International Symposium on Dynamic Traffic Assignment \(DTA 2016\)](#), Sydney, Australia, June 28, 2016.
- Mahmassani, HS. "Autonomous Vehicles and Traffic Physics: Framing the Questions", Invited presentation, Automated Vehicle Symposium 2016, San Francisco, CA, July 19-21. 2016.
- Mahmassani, HS. "A vision of the future: Smart Cities, Connected Travelers and the Internet of Things", *TERADATA PARTNERS 2016 Conference and Expo.*, Atlanta, GA., September 11, 2016.
- Mahmassani, HS. "Autonomous Vehicles and Connected Systems: Shared Fleet Mobility Models and Flow Implications". Invited Seminar, Daniel J. Epstein Department of Industrial and Systems Engineering, *University of Southern California*, November 8, 2016.

- Mahmassani, HS. "Autonomous Vehicles in Smart Connected Cities: *Making Transportation Great Again!*". Invited keynote presentation, 2nd *NYU Abu Dhabi* Transportation Symposium, Saadiyat, Abu Dhabi, UAE, November 20-21, 2016.
- Mahmassani, HS. "Does DTA Work in Practice? Firming the Foundations, Pushing the Boundaries". Invited seminar, *École Nationale des Travaux Publics de l'État*, Lyon, France, December 6, 2016.
- Mahmassani, HS. "Are We Ready for Autonomous and Connected Vehicles? Flow and Operations Considerations". Invited keynote presentation, *103rd Annual Transportation and Highway Engineering Conference*, UIUC, Champaign, IL., February 28, 2017.
- Mahmassani, HS. "Modeling Autonomous and Connected Vehicles Mixed Traffic Flow: Throughput, Stability, and Travel Time Reliability", Invited Presentation, Institute of Pure and Applied Mathematics (IPAM), Lake Arrowhead, CA., June 8, 2017.
- Mahmassani, HS. and Hyland, M. "Autonomous Vehicle Fleet Operations: Business Models and Optimization Approaches for Shared Mobility" *Route Optimization/Vehicle Routing (ROVER) Conference*, Warsaw, Poland, June 13, 2017.
- Mahmassani, HS. "GETTING THERE FROM HERE: Connected/Automated Vehicle Systems Planning and Operations", Mini symposium on Transportation Technologies and Methods, UIUC, Champaign, IL., July 27, 2017.
- Mahmassani, HS. "Technological Developments in Transportation and Future Mobility: Making Mobility Great Again!" Invited keynote presentation, Lebanese Order of Engineers Transportation Conference *Toward Effective Public Transport in Lebanon*, October 25-26, 2017, Beirut, Lebanon.
- Mahmassani, HS. "Behavior In or Behavior Out: Is Human Behavior Still Relevant in an Automated World?". Invited keynote presentation, 3rd *NYU Abu Dhabi* Transportation Symposium, Saadiyat, Abu Dhabi, UAE, November 19-20, 2017 .

GRANTS AND CONTRACTS:

CO-INVESTIGATORS	PROJECT TITLE	SPONSOR	AMOUNT	DURATION
Herman, Robert	<i>Characterization of Traffic in Cities</i>	U.S. DOT	\$10,000	1/1/82-8/31/82
Herman, Robert and Prigogine, Ilya	<i>Models of Self-Organizing Regional, Urban, and Transportation Systems</i>	U.S. DOT/Purdue University Subcontract	\$100,000	5/1/81-8/31/83
	<i>Applications of Discrete Choice Modelling Techniques to the Analysis of Driver Decisions in Vehicular Traffic</i>	Bureau of Engineering Research, UT-Austin	\$3,000	2/1/83-8/31/84
Walton, C. M.	<i>Future City, County, and State Intergovernmental Relations w.r.t. State Highway Maintenance and Rehabilitation Needs</i>	Texas State Department of Highways and Public Transportation (SDHPT)	\$35,000	6/1/83-8/31/84
Walton, C. M.	<i>Study of Truck Lane Needs</i>	Texas SDHPT	\$180,000	9/1/83-8/31/85
Walton, C. M. and Machemehl, R. B.	<i>Demand Estimation of Rural Public Transportation</i>	Texas SDHPT	\$50,000	9/1/84-8/31/85
Walton, C. M.	<i>Identification of Candidate Toll Roads in Current and Future Highway Development</i>	Texas SDHPT	\$110,000	9/1/84-8/31/86
	<i>Dynamics of Usage Decisions in Transportation Systems</i>	National Science Foundation Grant # CEE-8400306	\$147,000	9/1/84-8/31/87
Ward, W. W.	<i>Project Monitoring and Control</i>	Texas SDHPT	\$45,000	4/1/85-12/31/86
	<i>User Choice Dynamics in Congested Traffic Systems</i>	National Science Foundation Grant # CEE-8610459	\$68,025	11/1/86-4/30/88
Walton, C. M. and Herman, Robert	<i>The Future of Cities: Role of the Automobile Phases I, II, III & IV</i>	General Motors Research Laboratories	\$295,900	2/1/86-12/31/89
Lee, C. E. and Ward, W. W.	<i>Utilization of Consultants by SDHPT</i>	Texas SDHPT	\$75,000	3/1/86-8/31/86
Malina, J. F., Wright, S. G. & other CE Faculty	<i>CAD/CAE in Civil Engineering</i>	College of Engineering UT-Austin	\$250,000 supervised expenditure of \$15,000	9/1/86-8/31/87
Herman, Robert	<i>Investigation of Urban Traffic Network Performance Using Microscopic Simulation</i>	Cray Research, Inc. Grant	\$15,000	1/1/87-12/31/87
	<i>Development of a Data Base Management System</i>	Capital Metropolitan Transportation Authority	\$54,000	1/1/88-5/30/89
Walton, C. M.	<i>Pricing Strategy-Fare Policy</i>	Capital Metropolitan Transportation Authority	\$25,000	4/1/88-11/30/88

Herman, Robert	<i>In-Vehicle Guidance Technology: Applications to Real-Time Control of Traffic in Congested Networks</i>	Texas Higher Education Coordinating Board Advanced Technology Program	\$122,300	6/1/88-6/1/90
	<i>Information and Telecommunications Approaches to Improve Transportation Systems Performance</i>	U.S. Department of Transportation	\$240,000	10/1/88-8/31/92
	<i>Driver Responses to Traffic Disturbances and Control Strategies</i>	Texas SDHPT	\$235,000	12/1/88-8/31/92
Walton, C. M. and Ward, W. V.	<i>The Texas Mobility Arterial Study</i>	Texas SDHPT	\$12,000	5/1/89-8/31/89
	<i>Optimal Design of Bus Transit Networks for Suburban Mobility Needs</i>	Texas Governor's Office Oil-Overcharge Funds	\$161,000	4/1/90-8/31/93
Herman, Robert	<i>Telecommuting-Transportation-Energy Interactions: Potential for Reducing Transportation Energy Consumption Through Telecommuting</i>	Texas Governor's Office Oil-Overcharge Funds	\$165,000	4/1/90-8/31/92
Walton, C. M.	<i>Conversion of the SDHPT Automotive Fleet to Alternative Fuels</i>	Texas SDHPT	\$77,500	6/1/90-8/31/91
Walton, C. M.	<i>Economic Impact of Highway Bypasses and Loops</i>	Texas SDHPT	\$125,000	9/1/90-8/31/91
Euritt, M.	<i>Energy Savings from an Urban CNG-Operated Taxi Company</i>	Oil Overcharge Planning and Demonstration Funds, State of Texas	\$150,000	6/1/91-6/1/92
Machemehl, R. B.	<i>"Pedestrian Signals: Warrants and Effectiveness"</i>	Texas Department of Transportation (TxDOT)	\$153,000	9/1/91-8/31/93
Walton, C. M.	<i>"Real-Time Information for Improved Energy Efficiency for Carrier Fleet Operations"</i>	Texas Governor's Office Oil-Overcharge Funds	\$187,553	9/1/91-8/31/94
	<i>"Traffic Modelling to Support Advanced Traveler Information Systems"</i>	U.S. DOT, FHWA, IVHS Research Program	\$559,016	10/1/91-9/1/94
	<i>Behavioural Considerations in IVHS: ATIS and APTS</i>	U. S. Department of Transportation	\$127,824	10/1/91-8/30/94
	<i>Meeting the State's Strategic Intercity Mobility Needs in the 21st Century: Energy Efficiency Perspective</i>	Oil-Overcharge Planning and Demonstration Funds, State of TX	\$175,000	7/1/92-7/1/94
	<i>Demonstration of IVHS Concepts for Commercial Vehicle Operations</i>	Oil-Overcharge Planning and Demonstration Funds, State of TX	\$146,000	7/1/92-7/1/94
Herman, R.	<i>Reducing Transportation Energy Consumption Through Telecommuting</i>	Texas Governor's Office Oil Overcharge Funds	\$158,750	9/1/93-8/31/95

Walton, C. M.	<i>Use of Congestion Pricing for Reducing Urban Congestion, as a Revenue Source, and Compliance with the Clean Air Act</i>	TxDOT	\$150,000	9/1/92-8/31/94
	<i>Advanced Institute for Transportation Infrastructure Engineering and Management</i>	US DOT	\$1,260,875	9/1/92-9/30/02
	<i>Eisenhower Graduate Fellowship: Amelia Regan</i>	U.S. DOT, FHWA	\$78,700	9/1/93-5/31/96
	<i>Eisenhower Graduate Fellowship: Dean Taylor</i>	U.S. DOT, FHWA	\$78,700	9/1/93-5/31/96
	<i>Eisenhower Graduate Fellowship: Elise Deborah Miller</i>	U.S. DOT, FHWA	\$78,700	9/1/93-5/31/96
Ardekani, S. A., (UT Arlington)	<i>Detection and Mitigation of Roadway Hazards for Bicyclists</i>	TxDOT	\$210,000	9/1/93-8/31/95
	<i>Eisenhower Graduate Fellowship: Alixandra Demers</i>	U.S. DOT, FHWA	\$78,700	9/1/93-8/31/96
Machemehl, R. B. and Walton, C. M.	<i>Austin IVHS Early Deployment Study</i>	City of Austin, TX	\$35,000	9/1/94-8/31/96
Machemehl, R. B. (UT-Austin) and Williams, J. C., (UT-Arlington)	<i>Integrated Arterial and Freeway Operation Control Strategies for IVHS Advanced Traveler Management Systems</i>	TxDOT	\$462,500	9/1/94-8/31/97
Walton, C. M.	<i>Potential of Congestion Pricing for Energy Reduction and Congestion Mitigation</i>	Texas Governor's Office Oil Overcharge Funds	\$39,000	9/1/94-8/31/96
	<i>Suburban Transit Access and Bicycle Interfaces</i>	Texas Governor's Office Oil Overcharge Funds	\$35,000	9/1/94-8/31/96
	<i>Analysis of Traveler's Preferences for Routing</i>	U.S. DOT, FHWA subcontract through COMSIS Corp.	\$270,006	5/22/95-7/31/99
	<i>Transportation of MOX Fuels</i>	U.S. Dept. of Energy, through Amarillo National Resource Center for Plutonium	\$150,000	6/1/95-1/15/98
	<i>Characteristics of Bicycle Traffic and Urban Mobility Planning Implications</i>	U.S. DOT	\$64,600	9/1/95-9/30/99
	<i>Development of a Deployable Real-Time Dynamic Traffic Assignment System</i>	U.S. DOT, FHWA, as subcontract through Lockheed Martin Federal Systems (Oak Ridge)	\$1,692,410	10/1/95-5/31/02
	<i>DTA System Enhancement and Evaluation at Traffic Management Center, Continuation of Project: Development of a Deployable Real-Time Dynamic Assignment System Phase 1 Mod #10</i>	UT-Batelle, LLC Acting under prime contract with US DOE	\$260,814	10/1/95-5/31/02

	<i>User Behaviour Considerations in the Provision of Real-Time Information</i>	U.S. DOT	\$90,250	9/1/95-9/30/99
	<i>Real-Time Dynamic Traffic Assignment for Intelligent Transportation Networks</i>	Institutional - UT Vice President for Research	\$8,100	5/1/96-8/31/96
	<i>Development of an Incident Prediction Algorithm for Proactive Freeway Monitoring and Responsiveness"</i>	TxDOT	\$150,000	9/1/95-8/31/97
	<i>Eisenhower Graduate Fellowship: Vaishali Vora</i>	U.S. DOT, FHWA	\$55,660	9/1/95-12/31/98
Lasdon, Leon	<i>Information Systems for Effective Decision Making: Reengineering Capital Metro for the Information Age</i>	Capital Metropolitan Transportation Authority	\$85,000	6/18/96-8/31/97
	<i>Providing Advance and Real-Time Travel/Traffic Information for Tourists</i>	TxDOT	\$165,000	9/1/96-8/31/98
	<i>Telecommunications-Travel Interactions: An Activity-Based Approach to Demand Management and Infrastructure Planning</i>	SWUTC State Funds	\$42,000	9/1/95-8/31/97
		SWUTC General Revenue Funds	\$38,000	9/1/97-6/30/00
	<i>Improved Freight Mobility Through Real-Time Fleet Information and Management Systems</i>	SWUTC General Revenue Funds	\$98,500	9/1/95-8/31/99
	<i>Integrated Corridor Management</i>	Puerto Rico Highway Authority/ subcontract with Massachusetts Institute of Technology, via F. R. Harris, Inc.	\$60,000	4/1/97-5/31/99
	<i>From Information to Knowledge: Strategies & Technologies for Mining Large Real-Time Traffic Data Bases</i>	U.S. DOT SWUTC GG Funds	\$82,650	9/1/97-6/30/00
	<i>Forecasting Travel Demand to Support Transportation Decisions in the Context of the Dynamics of Metropolitan Growth</i>	SWUTC General Revenue Funds	\$50,350	9/1/97-8/31/00
	<i>Integrating Real-Time Info. with Dynamic Fleet Decision Systems for Improved Freight Mobility</i>	SWUTC General Revenue Funds	\$96,000	9/1/97-8/31/01
Haas, Carl	<i>Evaluation of Incident Detection Methodologies, Project #0-1795</i>	TxDOT	\$200,000	9/1/97-8/31/99
	<i>Academic Computing and Instructional Technology Services (ACITS): Dynamics of Urban Commuter Behaviour</i>	Cray T3E Academic Computing	\$2,000	7/1/98-12/31/98
	<i>Real-Time Traveler Information Systems for Non-Commuting Trips</i>	U.S. DOT (SWUTC)	\$52,000	9/1/98-9/30/02

Handy, Susan	<i>Defining Special Use Lanes: Case Studies and Guidelines</i>	TxDOT	\$75,000	9/1/98-8/31/99
Anchondo, Jorge Handy, Susan Malina, Joseph F.	<i>Corpus Christi Bay Water Transit System</i>	TxDOT	\$97,713	9/1/98-8/31/99
Kockelman, Kara Walton, C.M.	<i>Research on Relationships Between Transportation Infrastructure and Increases in Vehicle Miles Traveled</i>	U.S. Environmental Protection Agency	\$120,000	7/1/99-6/30/02
	<i>Airport Access: Intermodal Strategies To Address Congestion At Airport /Highway Interface</i>	TxDOT	\$180,000	9/1/99-8/31/01
Bhat, Chandra Handy, Susan Kockelman, Kara	<i>Development of Urban Accessibility Index</i>	TxDOT	\$265,000	9/1/99-8/31/02
Haas, Carl	<i>Evaluation of Automatic Identification System Implementation in San Antonio</i>	TxDOT	\$85,000	9/1/99-8/31/00
Lasdon, Leon	<i>Transit Scheduling Data Integration,</i>	TxDOT	\$85,000	9/1/99-8/31/00
	<i>Integrating Real-Time Information w. Dynamic Fleet Decision Systems For Intermodal Freight Mobility</i>	SWUTC General Revenue Funds	\$73,150	9/1/99-8/31/02
	<i>Freight Transportation And Logistics Implications Of Electronic Commerce And Virtual Supply Chains</i>	SWUTC General Revenue Funds	\$53,500	9/1/00-8/31/02
Handy, Susan Jarrett, James Kockelman, Kara	<i>Investigate the Economic Impacts of Highway Relief Routes on Small and Medium Size Communities</i>	TxDOT	\$150,000	9/1/99-8/31/01
Jaillet, Patrick	<i>Dynamic Optimization of Logistics and Transportation Operations</i>	Tx Higher Education Board Advanced technology Program	\$125,000 (no overhead)	1/1/00-12/31/01
Walton, C.M. Jaillet, Patrick	<i>Online Transportation Markets: Performance Models and Real-Time Fleet Operational Strategies</i>	National Science Foundation	\$140,000	9/1/00-8/31/02
	<i>Emerging Models for Provision of Real-Time Traveler Information Services: Transportation System Management Implications</i>	SWUTC General Revenue Funds	\$34,900	9/1/00-8/31/01
Bhat, Chandra	<i>Environmental Benefits of Intelligent Transportation System (ITS), Project</i>	TxDOT	\$182,000	9/1/00-8/31/02
Haas, Carl	<i>Integration of Point-Based and Link-Based Vehicle Detection Data,</i>	TxDOT	\$197,500	9/1/00-8/31/02
Lei, Yu (TSU)	<i>Using Real-Time Traffic Data for Transportation Planning</i>	TxDOT	\$245,000	9/1/00-8/31/02
	<i>TMC Evaluation Plan for a Real-Time Dynamic Traffic Assignment System Prototype: Phase 1.5B</i>	FHWA, US Dept. of Transportation (subcontract to ORNL)	\$210,000	10/1/01-12/31/03

	<i>DYNASMART-P Rollout Plan and Support Activities</i>	FHWA, US Dept. of Transportation (subcontract to ORNL)	\$253,500	1/1/02-12/31/03
	<i>Application of DYNASMART-P for Operational Planning in Southern California</i>	FHWA, US Dept. of Transportation (subcontract to Batelle)	\$50,000	5/1/03-4/30/04
Jaillet, Patrick (MIT)	<i>Impact of Real-time Carrier-shipper Interaction on Transportation System Performance</i>	National Science Foundation	\$158,000	3/15/03-3/15/05
	<i>General Open ended Agreement for Planning and Research</i>	Maryland State Highway Administration	\$1,500,000	10/03-6/06
Clifton, Kelly and Miller-Hooks, Elise	<i>Economic and Logistics Impact Assessment of Intercounty Connector</i>	Maryland State Highway Administration	\$365,000	11/03-12/04
	<i>Evaluation and Testing of DYNASMART-X for Maryland CHART Network</i>	FHWA, US Dept. of Transportation and Maryland SHA	\$285,000	4/04-8/05
	<i>Support of DYNASMART-P Deployment</i>	FHWA, US Dept. of Transportation	\$542,544	11/04-11/07
Haghani, Ali and Miller-Hooks, Elise	<i>Parity in Paratransit Service Provision: Definition and Measurement</i>	Maryland Transit Authority	\$55,000	1/05-6/05
	<i>UMD-FHWA Workshop on Planning for Operations: Challenges and Opportunities</i>	FHWA, US Dept. of Transportation	\$30,000	1/05-12/05
	<i>Integration of Claire, Dynasmart-X and Rhodes for Houston TRANSTAR TMC</i>	TxDOT, FHWA (subcontract to TTI)	\$250,000	6/05-12/06
Miller-Hooks, Elise	<i>REORIENT: Harmonizing Intermodal Rail Freight Service in the European Community</i>	European Commission	\$1,050,000	4/05-6/07
	<i>Center for Intermodal Freight Mobility and Security</i>	FHWA and Maryland SHA	\$700,000	12/05-12/07
	<i>Application of DYNASMART-P Methodology for Transportation System Redundancy Analysis in the Greater Baltimore Region</i>	Baltimore Metropolitan Council	\$135,222	12/05-6/08
Sun, Lu (Catholic University)	<i>Modeling Human Driving Behavior And Response With Applications To Intelligent Agent-Based Traffic Flow Simulation</i>	National Science Foundation	\$319,800	1/06-1/09
	<i>Teaming Agreement for US DOT/ FHWA IDIQ on Transportation Planning</i>	AECOM	TBD (Task Orders)	2/04-2/07
	<i>Teaming Agreement for FHWA IDIQ on Operations</i>	Science Applications International Corp. (SAIC)	TBD (Task Orders)	1/06-Present
	<i>Support for Research in Dynamic Traffic Assignment (unrestricted gift)</i>	Delcan, Inc.	\$25,000	6/06

<i>Improved Framework and Tools for Highway Pricing Decisions (NCHRP 8-57)</i>	NCHRP (subcontract to PB Consult)	\$68,000	8/06-12/08
<i>Application of DYNASMART-P Model Development for US Route 29</i>	Maryland State Highway Administration	\$40,200	10/06-4/07
<i>Development of a Statewide Model Platform</i>	Maryland State Highway Administration	\$100,000	10/06-11/07
<i>Integrated Corridor Management Phase I: Concept Development and Foundational Research</i>	FHWA, US Dept. of Transportation (subcontract to SAIC, Inc.)	\$12,000	1/07-6/07
<i>Support for Research in Dynamic Traffic Assignment and Applications at the Transportation Center, Northwestern (unrestricted gift)</i>	DHV, Inc., Netherlands	\$25,000 \$32,500	9/07 9/09
<i>Air Cargo Screening Model: Verification and Validation</i>	Transportation Security Administration (Aviation), Dept. of Homeland Security (subcontract to Quasars, Inc.)	\$67,500	10/07-06/10
<i>Incorporating Weather Impacts in Traffic Estimation and Prediction Systems</i>	FHWA, US Dept. of Transportation (subcontract to SAIC, Inc.)	\$112,400	11/07-6/09
<i>Improving Our Understanding of How Highway Congestion and Pricing Affect Travel Demand</i>	SHRP II Program, National Academies (subcontract to PB Americas, Inc.)	\$210,000	12/07-6/10
<i>Teaming Agreement for Volpe National Transportation Systems Center IDIQ on Operations Research and Analysis</i>	Science Applications International Corp. (SAIC)	TBD (Task Orders)	1/08-Present
<i>Makkah Central Area Planning Study: Workshops and Technical Assistance</i>	Ministry of Higher Education, Kingdom of Saudi Arabia (subcontract to King Abdulaziz Univ.)	\$848,000	10/08-3/09
<i>Makkah Central Area Transport Study: Vision Development and Communication, Technical Assistance</i>	Ministry of Higher Education, Kingdom of Saudi Arabia (subcontract to King Abdulaziz Univ.)	\$1,591,400	1/09-4/09
<i>Incorporating Reliability Performance Measures in Operations and Planning Modeling Tools</i>	SHRP II Program, National Academies (subcontract to Delcan, Inc.)	\$1,250,000 (\$375,000 NU Share)	1/09-12/11
<i>Emissions and Energy Costs in Marginal Cost Congestion Pricing for Roadways—Booster Award</i>	Initiative for Sustainability & Energy at Northwestern (ISEN)	\$30,000	9/09-6/10
<i>Effectiveness of Speed Enforcement Techniques in Illinois</i>	Illinois Dept. of Transportation (through Illinois Center for Transportation Research)	\$300,252	11/09-10/12
<i>Clearview Font In Traffic Signs: Assessing IDOT Experiences and Needs</i>	Illinois Dept. of Transportation (through Illinois Center for Transportation Research)	\$230,000	5/10-5/12

Marco (Yu) Nie	<i>Toward More Reliable Mobility: Improved Decision Support Tools for Transportation Systems</i>	National Science Foundation	\$525,000	9/09-9/12
	<i>Strategic Priorities Workshop Planning and Technical Direction</i>	Haji Research Institute, Umm-al-qura University, Kingdom of Saudi Arabia	\$289,000	4/10-8/10
Karen Smilowitz	<i>Future of International Air Cargo</i>	Boeing Corp.	\$145,000	6/10-9/10
	<i>Implementation and Evaluation of Weather Responsive Traffic Estimation and Prediction System</i>	FHWA, US Dept. of Transportation (subcontract to SAIC, Inc.)	\$175,000	7/10-6/12
	<i>Strategy Design and Implementation of a Road and Transport Research Center</i>	Ministry of Transportation, Kingdom of Saudi Arabia (with SETS Intl.)	\$375,000	7/10-8/12
	<i>Determinants of Industrial Space Demand</i>	Centerpoint Properties	\$65,000	4/11-10/11
	<i>Analysis of Network and Non-Network Impacts upon Traveler Choice: Improve Modeling Accuracy for Better Transportation Decision Making</i>	FHWA, US Dept. of Transportation (subcontract to SAIC, Inc.)	\$229,981	6/11-6/13
Diego Klabjan	<i>Load Pricing and Carrier Sourcing Engine (Phases 1-4)</i>	Echo Global Logistics	\$300,000	6/11-3/13
	<i>Technical Support for Transportation Operations Research and Development</i>	FHWA, US Dept. of Transportation (subcontract to SAIC, Inc.)	\$81,000	4/11-10/11
	<i>Concept Development and Needs Identification for Intelligent Network Flow Optimization (INFLO)</i>	FHWA, US Dept. of Transportation (subcontract to SAIC, Inc.)	\$50,000	10/11-10/12
	<i>Use of Mobile Data for Weather-Responsive Traffic Management Models</i>	FHWA, US Dept. of Transportation (w. Delcan, subcontract to SAIC, Inc.)	\$51,500	7/11-7/12
	<i>Applications for High Accuracy, High Integrity, High Availability Positioning and Navigation in Transportation and Logistics</i>	Boeing Corp.	\$50,000	10/11-3/12
	<i>Modeling and Forecasting of Toll Revenues</i>	FHWA, US Dept. of Transportation (subcontract to SAIC, Inc.)	\$225,000	10/11-1/13
Breton Johnson	<i>Megacommunity Simulation to Re-imagine Infrastructure</i>	Booz, Allen and Hamilton, Inc.	\$35,000	5/12-1/13
Joseph Schofer	<i>Design of CTA Transit Network</i>	Chicago Transit Authority	\$178,178	1/12-6/13
	<i>Work Zone Performance Measurement Using Probe Data</i>	FHWA, US Dept. of Transportation (w. Delcan, subcontract to SAIC, Inc.)	\$25,500	6/12-6/13
	<i>Flexible Transit Services for Dynamic Mobility</i>	US Dept. of Transportation (Tier II UTC)	\$95,000	1/13-9/13
	<i>City Logistics: Predictive Analytics for Real-time Freight Management</i>	US Dept. of Transportation (Tier II UTC)	\$52,000	1/13-9/13

	<i>Deployment of Weather-Responsive Traffic Estimation and Prediction System (TrEPS) in Utah DOT</i>	FHWA, US Dept. of Transportation (subcontract to SAIC, Inc.)	\$225,000	1/13-9/13
	<i>Transportation Policy Development, Planning and Management Executive Program</i>	Rajawali Foundation, Indonesia	\$290,000	5/13-12/13
	<i>Network Microsimulation Extension to Activity-Based Travel Model</i>	Chicago Metropolitan Agency for Planning (subcontract to PB, Inc.)	\$200,000	6/13-6/15
	<i>Tools for Tactical Decision-Making/Advancing Methods for Predicting Performance</i>	FHWA, US Dept. of Transportation (subcontract to SAIC, Inc.)	\$90,000	9/13-6/14
	<i>Leveraging Freight Payment Data for Service Planning and Operations</i>	US Bank, Inc.	\$68,500	9/13-3/14
Breton Johnson	<i>Building "LINCS" for Supply Chain Management</i>	US Dept, of Labor	\$250,000	10/13-9/17
	<i>Analysis, Modeling, and Simulation (AMS) Testbed Development and Evaluation to Support Dynamic Mobility Applications (DMA) and Active Transportation and Demand Management (ATDM) Programs</i>	FHWA, US Dept. of Transportation (subcontract to Booz Allen Hamilton, Inc.)	\$182,138	9/14-7/16
	<i>Grain Industry Dynamics and Rail Service</i>	Burlington Northern Santa Fe Corp.	\$285,000	9/14-8/15
Karen Smilowitz	<i>Air Cargo Opportunities for Vertical Take-off and Landing</i>	Boeing Corp.	\$127,200	11/14-6/15
	<i>Integrated Modeling for Road Condition Prediction</i>	FHWA, US Dept. of Transportation (subcontract to SAIC, Inc.)	\$75,000	12/14-11/15
	<i>Modeling and Simulation to Support Tafweej and Crowd Management</i>	Ministry of Hajj, Kingdom of Saudi Arabia (with Sejel Technologies, Inc.)	\$335,000	2/15-8/15
Joseph Schofer	<i>Infrastructure Vision 2050 Research and Perspectives</i>	Association of Equipment Manufacturers.	\$180,000	6/15-12/15
	<i>Active Transportation and Demand Management (ATDM) Analytical Methods for Urban Streets</i>	FHWA, US Dept. of Transportation (subcontract to Leidos, Inc.)	\$50,000	9/15-8/16
	<i>Red Light Camera Enforcement: Best Practices and Program Road Map</i>	City of Chicago Department of Transportation	\$311,000	12/15-8/16
	<i>Integrated Modeling for Road Condition Prediction Phase II</i>	FHWA, US Dept. of Transportation (subcontract to Leidos, Inc.)	\$195,000	10/15-10/17
	<i>Development of an Analysis/Modeling/Simulation (AMS) Framework for V2I and CV Environment</i>	FHWA, US Dept. of Transportation (subcontract to Leidos, Inc.)	\$140,000	10/16-10/18

<i>Fundamentals of Travel Time Reliability Guide,</i>	FHWA, US Dept. of Transportation (sub. to Leidos, Inc.)	\$60,000	10/16-10/17
<i>Intermodal Container Demand Forecasting to Support Service Supply Decisions</i>	Hub Group inc.	\$200,000	3/17-3/18
<i>Tools for Tactical Decision-Making/Advancing Methods for Predicting Performance</i>	FHWA, US Dept. of Transportation (sub. to Leidos, Inc.)	\$50,000	10/17-10/18
<i>Role of Calibration in Quantitative Alternatives Analysis</i>	FHWA, US Dept. of Transportation (sub. to Leidos, Inc.)	\$85,000	10/17-10/18
<i>Developing Analysis, Modeling, and Simulation (AMS) Tools for Connected and Automated Vehicle (CAV) Applications</i>	FHWA, US Dept. of Transportation (sub. to Leidos, Inc.)	\$130,000	10/17-12/19

PHD SUPERVISIONS COMPLETED:

NAME	YEAR	THESIS TITLE	CURRENT POSITION
Chang, Gang-Len	1985	<i>Departure Time Decision Dynamics in the Urban Transportation Network</i>	Professor, Civil and Environmental Engineering, University of Maryland , College Park, Maryland
Williams, James C.	1986	<i>Urban Traffic Network Performance: Flow Theory and Simulation Experiments</i>	Professor, Civil and Environmental Engineering, University of Texas Arlington Arlington, Texas
Baaj, M. Hadi	1990	<i>The Transit Network Design Problem: An AI-Based Solution Approach</i>	(former) Associate Professor, Civil and Environmental Engineering, American University of Beirut , Beirut, Lebanon
Al-Gadhi, Saad	1990	<i>Characterization of Crowd Behaviour and Movement</i>	Professor, Department of Civil Engineering, King Saud University , Riyadh, Kingdom of Saudi Arabia
Tong, Chee-Chung	1990	<i>A Study of Dynamic Departure Time and Route Choice Behaviour of Urban Commuters</i>	Professor, Transportation Engineering Tamkang University , Taipei Hsien, Taiwan
Lam, Soi-Hoi	1991	<i>Multinomial Probit Model Estimation: Computational Procedures and Applications</i>	Technical Consultant, Transportation Infrastructure Office Macao Government Administration (former) Associate Professor, Division of Geotechnical and Transportation Engineering, Nanyang Technological University , Singapore
Mouskos, Kyriacos	1991	<i>A Tabu-Based Heuristic Search Strategy to Solve a Discrete Transportation Equilibrium Network Design Problem</i>	Adjunct Professor, Civil and Environmental Engineering, City University of New York , New York City, New York
Jayakrishnan, R.,	1992	<i>In-Vehicle Information Systems for Network Traffic Control: A Simulation Framework to Study Alternative Guidance Strategies</i>	Professor, Civil and Environmental Engineering, University of California, Irvine , California
Jou, Rong- Chang	1994	<i>A Model of Dynamic Commuter Behaviour Incorporating Trip-Chaining</i>	Professor, Dept. of Transportation Engineering National Chi-Nan University , Taiwan
Peeta, Srinivas	1994	<i>System Optimal Dynamic Traffic Assignment in Congested Networks with Advanced Traveler Information Systems (ATIS)</i>	Professor and Director, Department of Civil Engineering, Purdue University , West Lafayette, Indiana
Shih, Mao-Chang	1994	<i>A Design Methodology for Bus Transit Route Networks with Coordinated Operations</i>	Adjunct Professor, Department of Civil Engineering, I-Shou University , Kaohsiung County, Taiwan

Yen, Jin-Ru	1994	<i>The Telecommuting Adoption Process: Conceptual Framework and Model Development</i>	Professor, Department of Shipping and Transportation Management, National Taiwan Ocean University , Keelung, Taiwan
Ziliaskopoulos, Athanasios	1994	<i>Optimum Path Algorithms on Multi-Dimensional Networks: Analysis, Design, Implementation and Computational Experience</i>	Chief Executive Officer, National Railways, Greece (formerly) Associate Professor, Department of Civil Engineering, Northwestern University , Evanston, Illinois
Hu, Ta-Yin	1995	<i>Dynamic Analysis of Network Flows under Advanced Information and Control Systems</i>	Professor and Chairman, Dept. of Transportation and Communication Mgmt. Science National Cheng Kung University Tainan, Taiwan
Hawas, Yaser, El-Sayed	1996	<i>A Decentralized Architecture and Local Search Procedures for Real-Time Route Guidance in Congested Vehicular Traffic Networks</i>	Professor and Director, Department of Civil Engineering, United Arab Emirates University , Al-Ain, United Arab Emirates
Joseph, Thomas	1996	<i>Freeway Corridor Control in a Day-to-Day Dynamic Framework</i>	Consultant, i2 Technologies , Irving, Texas
Regan, Amelia C.	1997	<i>Real-Time Information for Improved Efficiency of Commercial Vehicle Operations</i>	Professor and Associate Dean, Computer Science and Inf. Systems, University of California-Irvine , Irvine, California
Rodrigo, Garrido	1997	<i>Analysis of Spatial and Temporal Characteristics of Freight Demand</i>	Dean of Engineering, Universidad Diego Portales Santiago, Chile
Miller-Hooks, Elise	1997	<i>Optimal Routing in Time-Varying, Stochastic Networks: Algorithms and Implementation</i>	Professor, Civil and Environmental Engineering, University of Maryland , College Park, Maryland
Liu, Yu-Hsin	1997	<i>Dynamics of Commuter Behaviour under Real-Time Traffic Information</i>	Professor, Dept. of Transportation Engineering, National Chi-Nan University , Taiwan
Taylor, Dean B.	1998	<i>Contributions to Bicycle-Automobile Mixed-Traffic Science: Behavioural Models and Engineering Applications</i>	Private Consultant, Transportation and the environment, and bicycle transportation issues, Cambridge, Massachusetts
Acha-Daza, Jorge Artemio	1998	<i>The User's Response to Pricing in a Traffic Network</i>	Senior Researcher, Instituto Mexicano del Transporte , QuerZtaro, Mexico

Chen, Peter Shen-Te	1998	<i>Dynamics of Urban Commuter Behaviour under Real-Time Traffic Information</i>	President and CEO Volk Flow Controls Houston, TX (formerly) Assistant Professor, Civil and Environmental Engineering, University of Illinois, Urbana-Champaign , Illinois
Kang, Ying	1999	<i>Estimation and Prediction of Dynamic Origin-Destination Flows and System Consistency Control for Real Time Dynamic Traffic Assignment Operation in Congested Vehicular Networks</i>	Consultant, PROS Consulting , Houston, Texas
Abdelfatah, Akmal Saad	1999	<i>Time-Dependent Signal Control and System Optimal Traffic Assignment in Congested Vehicular Traffic Networks</i>	Associate Professor, Department of Civil Engineering, American University of Sharjah , Sharjah, United Arab Emirates
Valdes, Didier	1999	<i>Integrated Information and Traffic Control Strategies using ITS on Congested Urban Transportation Networks</i>	Associate Professor, Department of Civil Engineering, University of Puerto Rico , Mayaguez, Puerto Rico
Srinivasan, Karthik K.	2000	<i>Modeling Dynamic Decision and Adjustment Processes in Commuter Behavior under Real-Time Traffic Information</i>	Professor, Department of Civil Engineering, Indian Institute of Technology , Madras, India
Abdelghany, Khaled F.	2001	<u>Stochastic Dynamic Traffic Assignment for Intermodal Transportation Networks with Consistent Information Supply Strategies</u>	Associate Professor and Chair, Department of Civil and Environmental Engineering, Southern Methodist University Dallas, Texas
Abdelghany, Ahmed F.	2001	<u>Dynamic Micro-Assignment of Travel Demand with Activity/Trip Chains</u>	Associate Professor, Management, Marketing & Operations, College of Business Embry-Riddle Aeronautical University Daytona Beach, Florida
Tavana, Hossein	2001	<u>Internally-Consistent Estimation of Dynamic Network Origin-Destination Flows from Intelligent Transportation Systems Data Using Bi-Level Optimization</u>	Operations Research Specialist Carnival Cruise Lines Miami, Florida
Chiu, Yi-Chang	2002	<i>Hybrid Online Strategies for Robust Dynamic Traffic Assignment and Network Traffic Control</i>	Associate Professor Civil and Environmental Engineering University of Arizona Tucson, AZ
Kim, Yongjin	2003	<u>Hybrid Approaches to Solve Dynamic Fleet Management Problems</u>	Professor Asian Pacific School of Logistics Inha University Incheon, Korea

Murray-Tuite, Pamela	2003	<u>Identification of Vulnerable Transportation Infrastructure and Household Decision Making Under Emergency Evacuation Conditions.</u>	Associate Professor Clemson Clemson, SC
Figliozzi, Miguel Andras	2004	<u>Performance and Analysis of Spot Truck-Load Procurement Markets Using Sequential Auctions</u>	Professor Civil and Environmental Engineering Portland State University Portland, Australia
Zhou, Xuesong	2004	<u>Dynamic Origin-Destination Demand Estimation and Prediction for Online Dynamic Traffic Assignment Operation</u>	Associate Professor Civil and Environmental Engineering Arizona State University Tempe, Arizona
Qin, Xiao	2006	<u>Traffic Flow Modeling With Real-Time Data For On-Line Network Traffic Estimation And Prediction</u>	Consultant BAI, Inc. Columbia, Maryland
Giesen, Ricardo	2006	<u>Online Inventory Replenishment and Fleet Routing Decisions under Real-Time Information</u>	Associate Professor and Chairman Dept. of Transportation and Logistics Engineering, Pontificia Universidad Catolica de Chile, Santiago, Chile
Min, Yeonjoo	2007	<u>Dynamic Strategy Choice Behavior under Competitive Environment: Application to Electronic Freight Auction Marketplaces</u>	Research Associate Logistics Korea Transport Institute Seoul, Korea
Lu, Jason Chung-Cheng	2007	<u>Multi-Criterion Dynamic Traffic Assignment Models and Algorithms for Road Pricing Applications with Heterogeneous Users</u>	Professor Graduate Institute of Information and Logistics Management, National Taipei University of Technology Taipei, Taiwan
Chen, Roger B.	2007	<u>Learning and Risk Perception Mechanisms in Route Choice and Activity Scheduling Dynamics</u>	Assistant Professor Golisano Institute of Sustainability Rochester Institute of Technology Rochester, NY
Fei, Xiang (Shawn)	2007	<u>Robust Analysis of Sensor Coverage and Location for Real-Time Traffic Estimation and Prediction In Large-Scale Networks</u>	Chief Scientist IBM China Research Lab Beijing, China
Sbayti, Hayssam	2008	<u>Optimal Scheduling of Evacuation Operations with Contraflow</u>	Senior Consultant AECOM, Inc. Arlington, Virginia
Hamdar, Samer H. (Northwestern)	2008	<u>Modeling Driver Behavior as a Stochastic Hazard-Based Risk-Taking Process</u>	Associate Professor Civil and Environmental Engineering George Washington University Washington, D.C.
Dong, Jing (Northwestern)	2008	<u>Anticipatory Traveler Information and Pricing for Real-Time Traffic Management</u>	Assistant Professor Civil and Environmental Engineering Iowa State University Ames, Iowa

Zhang, Kuilin (Northwestern)	2009	<u>Dynamic Stochastic User Equilibrium: Models and Algorithms for Multidimensional Network Choices</u>	Assistant Professor Civil and Environmental Engineering Michigan Technological University Houghton, Michigan
Alibabai, Hamed (Northwestern)	2011	<u>Properties of Simulated Travel Times</u>	Chief Executive Officer Power Kiosk LLC Chicago, Illinois
Saberi, Meead (Northwestern)	2013	<u>Network Traffic Science: Theory, Characteristics, and Dynamics</u>	Assistant Professor Civil and Environmental Engineering Monash University Melbourne, Australia
Kim, Jiwon (Northwestern)	2013	<u>Travel Time Reliability of Traffic Networks: Characterization, Modeling, and Scenario-based Simulation</u>	Assistant Professor Civil and Environmental Engineering University of Queensland Brisbane, Australia
Jiang, Lan (Northwestern)	2013	<u>City Logistics: Predictive Analytics for Real-Time Freight Management</u>	Transportation Engineer Maricopa Association of Governments Phoenix, AZ
Lindsey, Christopher (Northwestern)	2014	<u>Third Party Logistics in the Transportation Spot Market: Using Analytics to Improve Operations</u>	Consultant Cambridge Systematics Atlanta, GA
Hou, Tian (Northwestern)	2014	<u>Network Traffic Modeling with Vehicle Trajectory Data</u>	Analytics Specialist Accenture Singapore
Verbas, Omer I. (Northwestern)	2014	<u>Transit Network Assignment, Simulation and Frequency Setting: Integrated Approaches and Large Scale Application</u>	Research Scientist Argonne National Laboratories Lemont, IL
Zockaie, Ali (Northwestern)	2015	<u>Path Finding and Traffic Equilibrium in Stochastic Networks Considering Link Travel Time Correlations</u>	Assistant Professor Civil and Environmental Engineering Michigan State University Lansing, MI
Talebpour, Alireza, Ali (Northwestern)	2015	<u>Modeling driver behavior in a connected environment: Integration of microscopic traffic simulation and telecommunication systems</u>	Assistant Professor Civil and Environmental Engineering Texas A&M University College Station, TX
Frei, Charlotte Anne (Northwestern)	2015	<u>User-Driven Demand Adaptive Transit: Enhancing the User Experience through Flexible Transit for Low-Density Communities</u>	Transportation Planner Wight & Company Chicago, IL
Chen, Ying (Northwestern)	2015	<u>Social Influence and Big Social Media Data Mining: Exploration, Modelling and Application in Transportation</u>	Research Assistant Professor Civil and Environmental Engineering Northwestern University Evanston, IL
Halat, Hooram (Northwestern)	2016	<u>Integrating Activity Scheduling and Travel Choices in a Dynamic Network Equilibrium Framework: Concepts, Algorithms and Application</u>	Consultant RSG Inc. Portland, OR

Hong, Zihan (Northwestern)	2017 <i>Traffic Systems under External Interventions: Characterization, Modeling, and Active Management</i>	Transportation Data Scientist Coyote Logistics Chicago, IL
Bou-Mjahed, Lama (Northwestern)	2017 <i>Toward Sustainable Travel Behavior and Activity Engagement: Connected Users, Technology Engagement and Cohort Effects</i>	Post-doctoral Researcher Northwestern University Transportation Center Evanston, IL

M.S. SUPERVISIONS COMPLETED:

NAME	YEAR	THESIS TITLE	DEPT. and PROGRAM
Rabe'a, Allos	1983	<i>Programming Reconstruction Investments: The Lebanon Context</i>	Civil Engineering Construction Engineering and Project Management
Carey, David, E.	1985	<i>Air Transportation Implications of High Technology Development</i>	Civil Engineering Transportation
Kim, Young-Geol	1986	<i>Performance Functions for Highway Links with Asymmetric Interactions Between Cars and Trucks</i>	Civil Engineering Transportation
McIntyre, Robert	1986	<i>Demand for Rural Public Transportation in Texas: Characteristics and Estimation Methodology</i>	Graduate School of Business MBA
Mouskos, Kyriacos	1986	<i>Network Assignment Methods for the Analysis of Truck-Related Highway Improvements</i>	Civil Engineering Transportation
Tong, Chee-Chung	1987	<i>Information Availability and Departure Time Decision Dynamics</i>	Civil Engineering Transportation
Jayakrishnan, R.	1987	<i>Application of a Dynamic Modelling Framework to the Analysis of Perturbations in a Congested Traffic System</i>	Civil Engineering Transportation
Stephan, Douglas, G.	1987	<i>Route Choice and Departure Time Decision Dynamics of Urban Commuters</i>	Civil Engineering Transportation
Albee, Kathryn E. C.	1989	<i>Methodologies for the Evaluation of Fare Structures and Service Improvement Strategies for Transit Systems</i>	Civil Engineering Transportation
Massimi, John	1989	<i>An Integer Programming Model for Solving a Bi-Modal Discrete Network Design Problem</i>	Mechanical Engineering Operations Research
Meesomboon, Jaroon	1990	<i>Simulation of Passenger Circulation in Airport Terminals</i>	Civil Engineering Transportation
Caplice, Christopher G.	1990	<i>Analysis of urban commuting behavior: switching propensity, use of information, and preferred arrival time</i>	Civil Engineering Transportation
Hatcher, Samuel G.	1991	<i>Daily Variation of Trip Chaining, Departure Time, and Route Selection of Urban Commuters</i>	Civil Engineering Transportation
Chen, Peter Shen-Te	1991	<i>Reliability of Real-Time Information Systems for Route Choice Decisions in a Congested Traffic Network</i>	Civil Engineering Transportation
Olson, Mark	1991	<i>Effectiveness of In-Vehicle Real-Time Information: A Simulation Study</i>	Civil Engineering Transportation

Yamashita, Tomoyuki	1991	<i>Real-Time Operation of Elevator Systems: Concepts and Applications</i>	Civil Engineering Transportation
Taylor, Dean	1992	<i>Decision Framework for Converting Automotive Vehicle Fleets to Alternate Fuels</i>	Civil Engineering Transportation
Ziliaskopoulos, A	1992	<i>Design and Implementation of Some K Shortest Path Algorithms with Application to IVHS</i>	Mechanical Engineering Operations Research
Sullivan, Mark	1993	<i>Impacts of Telecommuting on Urban Congestion and Fuel Consumption</i>	Civil Engineering Transportation
Figueiredo, Silvio	1993	<i>Driver Behaviour and Fuel Consumption</i>	Civil Engineering Transportation
Liu, Yu-Hsin	1994	<i>An Approach for the Characterization and Classification of Bus Transit Network Structures</i>	Civil Engineering Transportation
Miller, Elise	1994	<i>Determining Optimal Paths in a Network with Time-Dependent Stochastic Arc Times</i>	Civil Engineering Transportation
Palamarthy, Srinivas	1994	<i>Models of Pedestrian Crossing Behaviour at Signalized Intersections</i>	Civil Engineering Transportation
Flanigan-Kwest, Erin	1994	<i>A Geographic Information System for Transit Route Network Planning</i>	Civil Engineering Transportation
Spring, Christine	1995	<i>A Study of Two Types of Airline Route Network Structures: Hub-And- Spoke And Linear</i>	Civil Engineering Transportation
Foster, Jack	1995	<i>Setting Priorities in Long Range Transportation Planning Using the Analytic Hierarchy Process</i>	Civil Engineering Transportation
Ramachandran, Sridhara	1995	<i>Modeling Network Performance under Real-Time Information</i>	Civil Engineering Transportation
Regan, Amelia Clare	1995	<i>Real-time Information for Improved Commercial Vehicle Operations</i>	Civil Engineering Transportation
Warren, Lila Paige	1995	<i>Electric Vehicle Applications for Urban Travelers: Technology, Cost and the Market</i>	Civil Engineering Transportation
Moore, Raymond	1996	<i>User Response to Congestion Pricing</i>	Civil Engineering Transportation
Strong, Christopher Keith	1996	<i>Freight Demand Models for Cross-border Movement</i>	Civil Engineering Transportation
Demers, Alixandra	1996	<i>Bicycle-Public Transportation Interface</i>	Civil Engineering Transportation
Fang, Yolanda Yulan	1996	<i>Forecasting Freight Traffic between the U.S. and Mexico</i>	Civil Engineering Transportation

Koeppen, Debra	1996	<i>An Evaluation of the Effectiveness of Intelligent Transportation Systems Strategies using Computer Simulation</i>	Civil Engineering Transportation
Vora, Vaishali P.	1996	<i>Development and Implementation of a Telecommuting Evaluation Framework, and Modeling the Executive Telecommuting Adoption Process</i>	Civil Engineering Transportation
Abdelfatah, Akmal	1997	<i>Traffic Control and Dynamic Assignment in Congested Networks</i>	Civil Engineering Transportation
Bowler, Laurie	1997	<i>Routing of Radioactive Shipments in Networks with Time-Varying Costs and Curfews</i>	Civil Engineering Transportation
Mandava, Supriya	1997	<i>Gap Acceptance Behaviour of Drivers During Lane Changing on Freeways</i>	Civil Engineering Transportation
Stavropoulos, Antonios	1997	<i>Development of Incident Prediction Algorithms for Freeway Traffic Management</i>	Civil Engineering Transportation
Hao, Bingwen	1998	<i>Experiments Towards the Calibration and Validation of a Dynamic Network Assignment Simulation Model</i>	Civil Engineering Transportation
Figliozzi, Miguel Andres	1999	<i>Truck Trade Corridors between the U.S. and Mexico</i>	Civil Engineering Transportation
Huynh, Nhan H.	1999	<i>Development of a Graphical User Interface Framework for DYNASMART-X Real-Time Dynamic Traffic Assignment System</i>	Civil Engineering Transportation
LaLuz Pagan, Yadira	1999	<i>Trip Planning Behaviour of Tourists: San Antonio Case Study</i>	Civil Engineering Transportation
Peterman, Joshua J.	1999	<i>Evaluation of Incident Detection Methodologies</i>	Civil Engineering Transportation
El-Nazer, Zeina	1999	<i>Feasibility Study of Water Transit System for Middle-Sized Cities by the Sea - Case Study Of Corpus Christi</i>	Civil Engineering Transportation
Murray, Pamela Marie	1999	<i>Operational Assessment of High-Occupancy Vehicle/Toll Facilities in Urban Traffic Networks</i>	Civil Engineering Transportation
Haynes, Michael	2000	<i>Assessment of an On-line Automatic Vehicle Identification System for Use with Advanced Traveler Information Systems</i>	Civil Engineering Transportation
Rabah, Mouhamad	2001	<i>Impact of Electronic Commerce on Logistics: A Focus on VMI Strategy</i>	Civil Engineering Transportation
Tripathy, Amaresh	2001	<i>Effect of Aggregated Demand in Dynamic Vehicle Routing Problem</i>	Civil Engineering Transportation
Chebli, Hussein	2001	<i>Modeling Airport Access Mode and Arrival Time Decisions of Air Travelers</i>	Civil Engineering Transportation

Lin, Iris	2001	<i>Online Transportation Marketplaces: Shipper and Carrier Participation and Logistics Impacts</i>	Civil Engineering Transportation
Ludders, Jordan Faith	2001	<i>Mixed Integer Programming Models for Integrated Vehicle Routing and Flight Assignment in the Intermodal Express Package Industry</i>	Civil Engineering Transportation
Mehta, Tejas	2001	<i>Network Modeling and Emission Modeling Approaches for Evaluating the Impact of Information Based ITS Strategies on Mobile Source Emissions</i>	Civil Engineering Transportation
Qin, Xiao	2001	<i>Data Collection and Analysis to Support Real-Time Dynamic Traffic Assignment System Evaluation: The Irvine Testbed</i>	Civil Engineering Transportation
Mahfoud, Robert	2002	<i>Distributed Software Design and Implementation of a Real-Time Traffic Estimation and Prediction System</i>	Civil Engineering Transportation
Kottapalli, Amulya	2002	<i>Route Guidance with Environmental Objectives in Congested Networks</i>	Civil Engineering Transportation
Chen, Roger	2003	<i>Experiments with Day-to-Day Dynamics of Route Choice</i>	Civil Engineering Transportation
Hamdar, Samer H.	2004	<i>Towards Modeling Driver Behavior under Extreme Conditions</i>	Civil Engineering Transportation
Kozuki, Aaron T.C.Y.	2007	<i>Modeling the Dynamics of Opinion Formation and Propagation: Application to Market Adoption of Transportation Services</i>	Civil Engineering Transportation
Arcot, Vishnu Charan	2007	<i>Modeling Uncertainty in Rail Freight Operations: Implications for Service Reliability</i>	Civil Engineering Transportation
Roque, Alexis	2009	<i>Achieving Operational Efficiencies in Airline Operations: Diverting Planes to Close Airports and Steps Toward the Use of Alternative Fuels</i>	Civil Engineering Transportation
Orth, Hermann	2009	<i>Estimating Urban Arterial Link Delays Due to Curb Side Stopping Occurrences</i>	Civil Engineering Transportation
Duives, Dorine Cornelia	2011	<i>Route Choice Decisions during Evacuation Instances</i>	Civil Engineering Transportation
Gong, Cheng	2012	<i>Exploratory Factor Analysis for Customer Satisfaction Index</i>	Civil Engineering Transportation
Bou Mjahed, Lama	2013	<i>Towards a More Equitable Transit System: Concepts and Potential Framework For Accessibility-Based Measures</i>	Civil Engineering Transportation
Yu, Xinying	2013	<i>Design of Hybrid Transit Services for Low-Density Areas</i>	Civil Engineering Transportation

Cheng, Sihan	2014	<i>Application of a Real Time Estimation and Prediction System</i>	Civil Engineering Transportation
Baril, Adrien	2014	<i>Driver and Pedestrian behavior at signalized and unsignalized Intersections</i>	Civil Engineering Transportation
Elfar, Amr	2015	<i>Analyzing Queue Warning in Connected Environment: A Micro Simulation Approach</i>	Civil Engineering Transportation
Pumel, Aymeric	2015	<i>The Importance of Social Network and Social Media in Transportation</i>	Civil Engineering Transportation
Sajoux, Antoine	2017	<i>Aerial Ropeway Transportation systems (ART) in urban areas: Design factors and capacity limitation</i>	Civil Engineering Transportation

PH.D. IN PROGRESS:

Al Hajj Hasan, Lama
 Ale Ahmad, Hale
 Elfar, Amr
 Filipovska, Monika
 Hyland, Michael F.
 Kim, Eunhye
 Mittal, Archak
 Ostojic, Marija
 Pinto, Helen
 Xu, Xiang (Alex)