

# Curriculum Vitae

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## PROFESSIONAL EXPERIENCE

1991 – Specialist, California PATH Program, University of California, Berkeley  
1989 – 1990 Associate Specialist, California PATH Program, University of California, Berkeley  
1987 – 1989 Transportation Planner, The RAND Corporation, Santa Monica  
1981 – 1985 Computer Systems Performance Analyst, Citicorp, Santa Monica  
1980 – 1981 Mathematics Instructor, Occidental College, Los Angeles

## EDUCATION

M.S. (Transportation) Massachusetts Institute of Technology, 1987  
C. Phil. (Statistics) University of California, Los Angeles, 1978  
M.A. (Mathematics) University of California, Los Angeles, 1975  
B.A. (Mathematics) University of California, Los Angeles, 1973 (Magna Cum Laude, Phi Beta Kappa)

## PROFESSIONAL SERVICE

Member, Intelligent Transportation Society of America Societal, Institutional, and Environmental Committee (1998 – )  
Associate, Transportation Research Board Committee on Vehicle-Highway Automation (1998 – )  
Member, Intelligent Transportation Society of America 6th Annual Meeting Planning Committee (1995 – 1996)  
Member, Intelligent Transportation Society of America Societal Implications Task Force (1994 – 1998)  
Member, Intelligent Transportation Society of America Energy & Environment Committee (1993 – 1998)  
Member, Pacific Rim TransTech Conference Planning Committee, 1993  
Member, Intelligent Vehicle-Highway Systems Air Quality Workshop Planning Team, South Coast Air Quality Management District, 1993  
Member, Transportation Research Board (1990 – )

## **REFEREED PUBLICATIONS (including refereed conference proceedings)**

### **Area: Advanced Transportation Management and Information Systems**

“Data Sharing of Information for Travelers: State of the Practice”, *Proceedings of the 81<sup>st</sup> Annual Meeting of the Transportation Research Board (Pre-print CD-ROM, Paper No. 02-3321)*, Washington, D.C., January 2002.

“Evaluation Study of the TravInfo Regional Transportation Information Systems”, *Proceedings of the 81<sup>st</sup> Annual Meeting of the Transportation Research Board (Pre-print CD-ROM, Paper No. 02-4108)*, co-authored with Youngbin Yim, Washington, D.C., January 2002.

“How ITS Can Promote Coordinated Passenger Intermodal Operations and Services: An Institutional Perspective”, *Proceedings of the 8<sup>th</sup> World Congress on Intelligent Transport Systems*, Sydney, Australia, October 2001.

“Passenger Intermodal Operations and Services: A Synthesis of the Challenges and Opportunities for Successful Implementation”, *Proceedings of the 79<sup>th</sup> Annual Meeting of the Transportation Research Board (Pre-print CD-ROM, Paper No. 00-0992)*, co-authored with Camille Tsao, Washington, D.C., January 2000.

“The Human Influence on Determining ITS Benefits: Accomplishments, Challenges, and Lessons Learned from the Operation of TravInfo’s Traveler Information Center”, *Proceedings of the 10<sup>th</sup> Annual Meeting of the Intelligent Transportation Society of America*, Boston, Massachusetts, May 2000.

“Testing a Decision-Oriented Framework to Understand ITS Deployment Issues: Lessons Learned from the TravInfo ATIS Project”, *Proceedings of 6<sup>th</sup> Annual World Congress on Intelligent Transport Systems*, co-authored with Jacob Tsao, Toronto, Canada, November 1999.

“The Operation of a Traveler Information Center: The Foundation for Benefits to Travelers – The Case of the TravInfo Field Operational Test”, *IV and ITS Research SAE SP-1375 (Paper #98-1893)*, Society of Automotive Engineers, co-authored with Dimitri Loukakos, August 1998.

“The ISTE/ITS Connection in California: The State of the Relationship and Opportunities for Productive and Beneficial Linkages”, *Proceedings of the 8<sup>th</sup> Annual Meeting of the Intelligent Transportation Society of America*, co-authored with Wenyu Jia, Detroit, Michigan, May 1998.

“Operator Role in the Flow of Information at a Traveler Information Center: The Case of the TravInfo Field Operational Test”, *Proceedings of the 8<sup>th</sup> Annual Meeting of the Intelligent Transportation Society of America*, co-authored with Dimitri Loukakos, Detroit, Michigan, May 1998.

“Real-Time Data at a Traveler Information Center: Who’s Accessing It? The Case of the TravInfo Field Operational Test”, *Proceedings of the 8<sup>th</sup> Annual Meeting of the Intelligent Transportation Society of America*, co-authored with Dimitri Loukakos, Detroit, Michigan, May 1998.

“TravInfo’s Traveler Information Center: A Bridge Between the Transportation and Communications Worlds”, *Proceedings of the 7<sup>th</sup> Annual Meeting of the Intelligent Transportation Society of America*, co-authored with Dimitri Loukakos, Washington, D.C., June 1997.

“Evaluating the Effectiveness of Integrated Traffic Corridors: Concept and Practice”, *ITS Journal*, Vol. 3(1), pp. 49-67, co-authored with Randolph Hall and Asad Khattak, 1996.

### **Area: Advanced Vehicle Control and Safety Systems**

“Evaluation of the Effects of Adaptive Cruise Control Systems on Highway Traffic Flow Capacity”, forthcoming, *Transportation Research Record*, Transportation Research Board National Research Council, co-authored with Joel VanderWerf, Steven Shladover, and Natalia Kourjanskaia, National Academy Press, Washington, D.C., 2002.

“Cooperative Vehicle-Highway Automation Systems: Opportunities for Demonstrated Benefits”, forthcoming, *Proceedings of 9<sup>th</sup> Annual World Congress on Intelligent Transport Systems*, co-authored with Steven E. Shladover, Chicago, Illinois, October 2002.

“Show Me the Benefits: A Truck and Bus Demonstration in 2003”, forthcoming, *Proceedings of 9<sup>th</sup> Annual World Congress on Intelligent Transport Systems*, co-authored with James A. Misener, Chicago, Illinois, October 2002.

“Truck Automation: What are the Institutional Challenges?”, forthcoming, *Proceedings of 9<sup>th</sup> Annual World Congress on Intelligent Transport Systems*, Chicago, Illinois, October 2002.

“Bus Rapid Transit: Institutional Issues and Strategies for Resolution”, *Proceedings of the 8<sup>th</sup> World Congress on Intelligent Transport Systems*, Sydney, Australia, October 2001.

“Bus Rapid Transit Institutional Issues: The Route from Research to Experience”, *Transportation Research Record, No. 1760, Transit: Bus Transit and Maintenance, Paratransit, and New Technology*, Transportation Research Board National Research Council, co-authored with Stephen M. Buckley, National Academy Press, Washington, D.C., 2001, pp. 34-41.

“Modeling Effects of Driver Control Assistance Systems on Traffic”, *Transportation Research Record, No. 1748, Advanced Traffic Management Systems and Vehicle-Highway Automation*, Transportation Research Board National Research Council, co-authored with Joel VanderWerf, Steven Shladover, Natalia Kourjanskaia, and Hariharan Krishnan, National Academy Press, Washington, D.C., 2001, pp. 167-174.

“Lessons Learned From a Review of Evaluations of Automated Highway Systems”, *Transportation Research Record, No. 1679, Intelligent Transportation Systems, Vehicle-Highway Automation, and Artificial Intelligence*, Transportation Research Board National Research Council co-authored with James Bret Michael, National Academy Press, Washington, D.C., 1999, pp. 126-129.

“The Development of a Hierarchical Methodology for Benefit Evaluation of Vehicle-Highway Automation: A Case Study of the Houston Katy Freeway”, *Transportation Research Record, No. 1679, Intelligent Transportation Systems, Vehicle-Highway Automation, and Artificial Intelligence*, Transportation Research Board National Research Council, co-authored with James A. Misener, Datta N. Godbole, and Akash R. Deshpande, National Academy Press, Washington, D.C., 1999, pp. 139-147.

“Institutional and Societal Issues Associated with Automated Highway Systems--An Environmental Perspective”, *Automated Highway Systems (Chapter 15)*, Plenum Publishing, 1997, pp. 313-324.

“Integration of Automated Highway Systems Into Existing California Freeways”, *Automated Highway Systems (Chapter 3)*, Plenum Publishing, co-authored with Youngbin Yim, Paul Hellman, and Mohammad Sharafsaleh, 1997, pp. 29-48.

“Regional Mobility Impacts Assessment of Highway Automation”, *Automated Highway Systems (Chapter 14)*, Plenum Publishing, co-authored with Anne Bresnock, Steven E. Shladover, and Edward H. Lechner, 1997, pp. 293-311.

“Analysis of Throughput Achievable with Automated & Manual Vehicles Sharing a Lane”, *Proceedings of the 7<sup>th</sup> Annual Meeting of the Intelligent Transportation Society of America*, co-authored with Steven E. Shladover, Washington, D.C., June 1997.

“An Infrastructure Assisted Concept for Automated Highway Systems”, *Proceedings of 3<sup>rd</sup> Annual World Congress on Intelligent Transport Systems*, co-authored with Datta Godbole, Jim Misener, and Raja Sengupta, and Jacob Tsao, Orlando, Florida, October 1996.

“Automated Highway Systems and Transit Operations”, *Proceedings of 3<sup>rd</sup> Annual World Congress on Intelligent Transport Systems*, co-authored with Ronald J. Fisher, and Alan Lubliner, Orlando, Florida, October 1996.

“Automated Highway Systems and the Planning & Decision-Making Processes at State, Regional, and Local Levels”, *Proceedings of 3<sup>rd</sup> Annual World Congress on Intelligent Transport Systems*, co-authored with Matt Hanson, Orlando, Florida, October 1996.

“Infrastructure Deployment Issues Associated with Automated Highway Systems in Urban Areas”, *Proceedings of the 5<sup>th</sup> Annual Meeting of the Intelligent Transportation Society of America*, co-authored with Youngbin Yim, Paul Hellman, and Mohammad Sharafsaleh, Washington, D.C., March 1995.

“Examination of Environmental Issues Associated with Automated Highway Systems”, *Proceedings of the 5<sup>th</sup> Annual Meeting of the Intelligent Transportation Society of America*, Washington, D.C., March 1995.

“A Preliminary Assessment of Issues and Risks for the Infrastructure Deployability of Automated Highway Systems”, *Proceedings of the 4<sup>th</sup> Annual Meeting of the Intelligent Vehicle-Highway Society of America*, co-authored with Youngbin Yim, Paul Hellman, and

Mohammad Sharafsaleh, Atlanta, Georgia, April 1994.

“Highway Automation: System Modeling for Impacts Analysis”, *Proceedings of Vehicle Navigation & Information Systems Conference*, co-authored with Anne Bresnock, Steven E. Shladover, and Edward H. Lechner, Dearborn, Michigan, October 1991.

### **Other**

“Roadway Electrification: Regional Impacts Assessment”, *Transportation Research Record, Number 1416, Energy and Environment-Environmental Analysis, Air Quality, Noise, Energy, and Alternative Fuels*, Transportation Research Board National Research Council, co-authored with Anne Bresnock, Steven E. Shladover, and Edward H. Lechner, National Academy Press, Washington, D.C., 1993, pp. 43-52.

### **NON-REFEREED PUBLICATIONS**

#### **Area: Advanced Transportation Management and Information Systems**

“Investigating Institutional Aspects of Multi-Agency Transit Operations – Review of the Literature”, California PATH Working Paper, UCB-ITS-PWP-2002-3, California PATH Program, University of California, Berkeley, May 2002.

“Assessing Opportunities for Intelligent Transportation Systems in California’s Passenger Intermodal Operations and Services”, California PATH Research Report, UCB-ITS-PRR-2001-34, California PATH Program, University of California, Berkeley, November 2001.

“Data Sharing of Traveler Information With the Public and Private Sectors: State of the Practice”, California PATH Research Report, UCB-ITS-PRR-2001-16, California PATH Program, University of California, Berkeley, co-authored with Kevin Balke, August 2001.

“Operations at Regional Traveler Information Centers: The Case of the TravInfo Field Operational Test – Final Results”, California PATH Working Paper, UCB-ITS-PWP-2000-20, California PATH Program, University of California, Berkeley, co-authored with Dimitri Loukakos, October 2000.

“TravInfo Evaluation (Technology Element) Traveler Information Center (TIC) Study: Operator Response Time Analysis”, California PATH Working Paper, UCB-ITS-PWP-2000-09, California PATH Program, University of California, Berkeley, co-authored with Dimitri Loukakos, August 2000.

“A Field Survey of Site Visits to Passenger Intermodal Transfer Facilities in California”, California PATH Technical Note 2000-1, California PATH Program, University of California, Berkeley, Berkeley, co-authored with Chris Mitchell, July 2000.

“Evaluation of TravInfo Field Operational Test: Final Report”, California PATH Research Report, UCB-ITS-PRR-2000-7, California PATH Program, University of California, Berkeley, co-authored with Youngbin Yim, May 2000.

“Assessing Opportunities for Intelligent Transportation Systems in California’s Passenger Intermodal Operations and Services—*Review of the Literature*”, California PATH Technical Note, 99-1, California PATH Program, University of California, Berkeley, co-authored with Camille Tsao, August 1999.

“Testing A Proposed Decision-Oriented Framework To Understand ITS Deployment Issues: An Examination of the TravInfo ATIS Project”, California PATH Research Report, UCB-ITS-PRR-98-35, California PATH Program, University of California, Berkeley, December 1998.

“TravInfo Evaluation (Technology Element) Traveler Information Center (TIC) Study: *Operator Interface Component-Phase IV: Institutional Analysis*”, California PATH Working Paper, UCB-ITS-PWP-98-30, California PATH Program, University of California, Berkeley, co-authored with Dimitri Loukakos, November 1998.

“TravInfo Evaluation Traveler Response Element: TravInfo 817-1717 Caller Study Phase I Results”, California PATH Working Paper, UCB-ITS-PWP-98-25, California PATH Program, University of California, Berkeley, co-authored with Youngbin Yim, Randolph Hall, and Ronald Koo, September 1998.

“TravInfo Evaluation (Technology Element) Traveler Information Center (TIC) Study: *Operator Interface Analysis-Phase III*”, California PATH Working Paper, UCB-ITS-PWP-98-22, California PATH Program, University of California, Berkeley, co-authored with Dimitri Loukakos, September 1998.

“TravInfo Evaluation (Technology Element) Traveler Information Center (TIC) Study: *System Reliability and Communications Interface (9/96 – 12/97)*”, California PATH Working Paper, UCB-ITS-PWP-98-21, California PATH Program, University of California, Berkeley, co-authored with Dimitri Loukakos, September 1998.

“The ISTE/ITS Connection in California: The State of the Relationship and Opportunities for Productive and Beneficial Linkages”, California PATH Research Report, UCB-ITS-PRR-98-22, California PATH Program, University of California, Berkeley, co-authored with Wenyu Jia, May 1998.

“TravInfo Evaluation (Technology Element) Traveler Information Center (TIC) Study (September 1996 – June 1997)”, California PATH Working Paper, UCB-ITS-PWP-98-7, California PATH Program, University of California, Berkeley, co-authored with Dimitri Loukakos, March 1998.

“TravInfo Field Operational Test-Traveler Information Center (TIC) Study (Technology Evaluation Element) Implementation Plan”, California PATH Working Paper UCB-ITS-PWP-95-14, California PATH Program, University of California, Berkeley, co-authored with Randolph Hall, November 1995.

“TravInfo Field Operational Test Evaluation Plan”, California PATH Working Paper UCB-ITS-PWP-95-4, California PATH Program, University of California, Berkeley, co-authored with Randolph Hall, Youngbin Yim, Asad Khattak, and Stein Weissenberger, May 1995.

“Summary TravInfo Evaluation Plan”, published as a California PATH Report to Caltrans 95-C4, California PATH Program, University of California, Berkeley, co-authored with Youngbin Yim, Randolph Hall, Asad Khattak, and Stein Weissenberger, March 1995.

“TravInfo Evaluation Plan: Update 1”, California PATH Working Paper UCB-ITS-PWP-94-3, California PATH Program, University of California, Berkeley, co-authored with Youngbin Yim, Asad Khattak, Randolph Hall, and Stein Weissenberger, March 1994.

“Smart Corridor Evaluation Plan: Conceptual Design”, California PATH Research Report UCB-ITS-PRR-94-01, California PATH Program, University of California, Berkeley, co-authored with Asad Khattak, Randolph Hall, Genevieve Giuliano, James Moore, and Martin Wachs, February 1994.

“TravInfo Evaluation Plan”, California PATH Working Paper UCB-ITS-PWP-93-16, California PATH Program, University of California, Berkeley, co-authored with Youngbin Yim, Asad Khattak, and Randolph Hall, November 1993.

#### **Area: Advanced Vehicle Control and Safety Systems**

“Development and Performance Evaluation of AVCSS Deployment Sequences to Advance from Today’s Driving Environment to Full Automation”, California PATH Research Report, UCB-ITS-PRR-2001-18, California PATH Program, University of California, Berkeley, co-authored with Steven Shladover, Joel VanderWerf, Natalia Kourjanskaia, and Hariharan Krishnan, August 2001.

“Institutional Aspects of Bus Rapid Transit: A Macroscopic Examination”, California PATH Working Paper, UCB-ITS-PWP-2000-07, California PATH Program, University of California, Berkeley, co-authored with Stephen M. Buckley, July 2000.

“Institutional Aspects of Bus Rapid Transit Operation”, California PATH Research Report, UCB-ITS-PRR-2001-09, California PATH Program, University of California, Berkeley, co-authored with Stephen M. Buckley, April 2001.

“An Investigation of Deployment Strategies for Automated Highway Systems: Final Report for Project MOU 145”, California PATH Program, University of California, Berkeley, co-authored with H.S. Jacob Tsao and Mohammad Sharafsaleh, California PATH Reports to Caltrans 97-C17, April 1997.

“Precursor Systems Analyses of Automated Highway Systems-Activity O: Institutional & Societal Aspects-Environmental Issues Final Report”, FHWA-RD-95-151, co-authored with Delco

Electronics Corporation, DMJM, Hughes Aircraft Company, and General Motors, Federal Highway Administration, January 1995.

“Precursor Systems Analyses of Automated Highway Systems-Activity H: Roadway Deployment Analysis Final Report”, FHWA-RD-95-031, Federal Highway Administration, co-authored with Youngbin Yim, Paul Hellman, and Mohammad Sharafsaleh, January 1995.

“Highway Electrification and Automation Technologies - Regional Impacts Analysis Project” Five Volume Set (Executive Summary, Baseline Scenario Data Analysis, Scenario for Advanced Highway Technologies, Impacts Analysis, Appendices: Mobility Statistics), California PATH Research Report UCB-ITS-PRR-93-18:22, California PATH Program, University of California, Berkeley, co-authored with the Southern California Association of Governments, November 1993.

“Feasibility Study of Advanced Technology HOV Systems Volume 2B: Emissions Impact of Roadway-Powered Electric Buses, Light-Duty Vehicles, and Automobiles”, California PATH Research Report UCB-ITS-PRR-92-4, California PATH Program, University of California, Berkeley, co-authored with Victor Dato and Ted Chira-Chavala, December 1992.

#### **Other**

“An Investigation of the Costs of Roadway Traffic Congestion - A Preparatory Step for IVHS Benefits’ Evaluation”, California PATH Research Report UCB-ITS-PRR-94-15, California PATH Program, University of California, Berkeley, co-authored with Kayin Li, May 1994.