

YINHAI WANG

Curriculum Vitae

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EDUCATIONAL HISTORY

University of Tokyo, Tokyo, Japan
Ph.D. in Transportation Engineering
September 1998
Dissertation title: Modeling Vehicle-to-Vehicle Accident Risk Considering the Occurrence
Mechanism at Four-Legged Signalized Intersections

University of Washington, Seattle, Washington
M.S. in Computer Science and Engineering
December 2002

Tsinghua University, Beijing, China
M.S.C.E. in Construction Engineering
June 1991

Tsinghua University, Beijing, China
B.S.C.E. in Structural Engineering
July 1989

EMPLOYMENT HISTORY

University of Washington, Seattle, WA, USA
Professor, Sept. 2011 –

University of Washington, Seattle, WA, USA
Associate Professor, Sept. 2007 – Aug. 2011

University of Washington, Seattle, WA, USA
Assistant Professor, Sept. 2003 – Aug. 2007

University of Washington, Seattle, WA, USA
Research Assistant Professor, Dec. 2002 – Sept. 2003

University of Washington, Seattle, WA, USA
Acting Assistant Professor, Aug. 2002 – Nov. 2002

University of Washington, Seattle, WA, USA
Research Associate, Jan. 2001 – July 2002

University of Washington, Seattle, WA, USA
Visiting Scientist, Oct. 1998 – Jan. 2001

University of Tokyo, Tokyo, Japan
Research Assistant, Oct. 1995 – Sept. 1998

Tsinghua University, Beijing, China
Assistant Professor, June 1991 – Sept. 1998

AWARDS AND HONORS

Overseas Collaborative Research Award, National Natural Science Foundation of China, Jan. 2010 – Dec. 2012.

PTV AG Scientific Award 2009, Third Place (with Guohui Zhang, a PhD student of mine),
Dynamic Tolling Simulation Using External Module, October 2009, PTV AG, Germany.

Thomas and Marilyn Nielson Endowed Funds in Engineering Professorship, November 2006 –
October 2011, University of Washington.

Best Paper Award for 2003, *Journal of Transportation Engineering*, March 2004, American
Society of Civil Engineers (ASCE).

Excellent Presentation Award, 51st Annual Conference of Japan Society of Civil Engineers,
September 1996, Japan Society of Civil Engineers.

Japanese Government Scholarship, October 1995 – September 1998, Ministry of Science and
Education, Japan.

Overseas Research Scholarship, April 1995, Department of Education and Employment, UK.

Distinguished Teaching Award for Young Faculty, January 1994, Tsinghua University, China.

Distinguished Teaching Award for Young Faculty, May 1993, Tsinghua University, China.

Outstanding College Graduates Award, August 1989, China Civil Engineering Society, China.

Excellent Student Medal, September 1988, Tsinghua University, China.

AFFILIATIONS AND OTHER APPOINTMENTS

Visiting Department Chair, Traffic Information and Control Department, Harbin Institute of
Technology, Harbin, China

Affiliate Professor, Beijing Transportation Research Center, Beijing, China

PUBLICATIONS

Refereed archival journal publications

(Authors marked with * are my graduate or undergraduate students)

Published:

1. Wu*, Yao-Jan, Guohui Zhang*, and Yin Hai Wang. "Link Journey Speed Estimation for Urban Arterial Performance Measurement using Advance Loop Detector Data under Congested Conditions." *Journal of Transportation Engineering*. In Press. Aug. 2011.

2. Lao^{*}, Yunteng, Guohui Zhang^{*}, Yao-Jan Wu^{*}, and Yin Hai Wang. "Modeling Animal-Vehicle Collisions Considering Animal-Vehicle Interactions." *Accident Analysis and Prevention*. Issue 43, 1991-1998, 2011.
3. Lao^{*}, Yunteng, Yao-Jan Wu, Yin Hai Wang, and Xiaoguang Yang. "Applicability of Single and Double Phase Midblock Crossings." *Proceedings of the ICE: Transport*. In Press. 2011.
4. Liu^{*}, Xiaoyue, Bastian J. Schroeder, Timothy Thomson^{*}, Yin Hai Wang, Nagui Roupail, and Yafeng Yin. "Analysis on Operational Intersections between Freeway Managed Lanes and Parallel General Purpose Lanes." *Transportation Research Record*. In Press. 2011.
5. Ma^{*}, Xiaolei, Edward McCormack, and Yin Hai Wang. "Processing Commercial GPS Data to Develop a Web-based Freight Performance Measures Program." *Transportation Research Record*. In Press. 2011.
6. Ma^{*}, Xiaolei, Yao-Jan Wu^{*}, and Yin Hai Wang. "DRIVE Net: An E-Science of Transportation Platform for Data Sharing, Visualization, Modeling, and Analysis." *Transportation Research Record*. In Press. 2011.
7. Wu^{*}, Yao-Jan, Xiaolei Ma^{*}, and Yin Hai Wang. "Development of Web-Based Arterial Network Analysis System for Real-Time Decision Making." *Transportation Research Record*. In Press. 2011.
8. Corey^{*}, Jonathan, Yunteng Lao^{*}, and Yin Hai Wang. "Detection and Correction of Inductive Loop Detector Sensitivity Errors Using Gaussian Mixture Models." *Transportation Research Record*. In Press. 2011.
9. Liu^{*}, Xiaoyue, Guohui Zhang^{*}, Yunteng Lao^{*}, and Yin Hai Wang. "Quantifying the Attractiveness of High Occupancy Toll Lanes under Various Traffic Conditions Using Traffic Sensor Data." *Transportation Research Record*. In Press. 2011.
10. Lao^{*}, Yunteng, Yao-Jan Wu^{*}, Jonathan Corey^{*}, and Yin Hai Wang, "Modeling Animal-Vehicle Collisions Using Diagonal Inflated Bivariate Poisson Regression." *Accident Analysis and Prevention*, Issue 43, 220-227, 2010.
11. Wu^{*}, Yao-Jan, Guohui Zhang^{*}, and Yin Hai Wang. "Volume Data Correction for Single-channel Advance Loop Detectors at Signalized Intersections." *Transportation Research Record*, No. 2160, 128 – 139, 2010.
12. Wu^{*}, Yao-Jan, Mark Hallenbeck, Yin Hai Wang, and Kari Watkins. "Evaluation of Interaction between Arterial and Freeway Performance: Case Study." *ASCE Journal of Transportation Engineering*. In Press. 2010.
13. Zhang^{*}, Guohui and Yin Hai Wang. "Optimizing Minimum and Maximum Green Time Settings for Traffic Actuated Control at Isolated Intersections." *IEEE Transactions on Intelligent Transportation Systems*. Issue 99, 1-10, 2010.
14. Malinovski^{*}, Yegor, Yao-Jan Wu^{*}, and Yin Hai Wang. "Video-Based Vehicle Detection and Tracking Using Spatiotemporal Maps." *Transportation Research Record*, No. 2121, 81-89, 2009.
15. Wu^{*}, Yao-Jan and Yin Hai Wang. "Interactive Web-based System for Urban Traffic Data Analysis." *International Journal of Web Applications*. Vol. 1, No. 3, 115-126, 2009.
16. Zhang^{*}, Guohui, Shuming Yan, and Yin Hai Wang. "Simulation-based Investigation on High Occupancy Toll (HOT) Lane Operations for Washington State Route 167." *ASCE Journal of Transportation Engineering*. Vol. 35, No. 10, 677-686, 2009.
17. Zheng^{*}, Jianyang, Guohui Zhang^{*}, Yin Hai Wang, and Pete Briglia. "Evaluation of Transit Signal Priority Using Observed and Simulated Data." *ITE Journal*. Vol. 79, No. 11, 42-29, 2009.

18. Yu^{*}, Runze, Guohui Zhang^{*} and Yin Hai Wang. "Loop Detector Segmentation Error and Its Impacts on Traffic Speed Estimation." *Transportation Research Record* 2099, 50-57, 2009.
19. Malinovsky^{*}, Y., Jianyang Zheng^{*}, and Yin Hai Wang. "Model-Free Video Detection and Tracking of Pedestrians and Bicyclists." *Computer-Aided Civil and Infrastructure Engineering*, Vol. 24, No. 3, 157-168, 2009.
20. Yi, Ping, Chun Shao, and Yin Hai Wang. "Piecewise Optimum Delay Estimation for Improved Signal Control." *Transportation Research Record* 2080, 57-66, 2008.
21. Malinovsky^{*}, Yegor, Yao-Jan Wu^{*}, and Yin Hai Wang. "Video-Based Monitoring of Pedestrian Movements at Signalized Intersections." *Transportation Research Record* 2073, 11-17, 2008.
22. Zhang^{*}, Guohui, Yin Hai Wang, Heng Wei, and Ping Yi. "A Feedback-Based Dynamic Tolling Algorithm for High Occupancy Toll (HOT) Lane Operations." *Transportation Research Record* 2065, 54-63, 2008.
23. Cheevarunothai^{*}, Patikhom, Yin Hai Wang, and Nancy L. Nihan. "Development of an Affordable Loop Detector Simulator (LOOPSIM) for In-Laboratory Traffic Research and Training." *Computer Applications in Engineering Education*. Volume 16, Issue 1, 45-54, 2008.
24. Zhang^{*}, Guohui, Yin Hai Wang, and Heng Wei. "Examining Headway Distribution Models Using Urban Freeway Loop Event Data." *Transportation Research Record*, No. 1999, 141-149, 2007.
25. Avery^{*}, Ryan P., Guohui Zhang^{*}, Yin Hai Wang, and Nancy L. Nihan. "An Investigation into Shadow Removal from Traffic Images." *Transportation Research Record*, No. 2000, 70-77, 2007.
26. Zhang^{*}, Guohui, Ryan P. Avery^{*}, and Yin Hai Wang. "A Video-based Vehicle Detection and Classification System for Real-time Traffic Data Collection Using Uncalibrated Video Cameras." *Transportation Research Record*, No. 1993, 138-147, 2007.
27. Cheevarunothai^{*}, Patikhom, Yin Hai Wang, and Nancy Nihan. "Using Dual-Loop Event Data to Enhance Truck Data Accuracy." *Transportation Research Record*, No. 1993, 131-137, 2007.
28. Kim^{*}, Joon-Ki, Yin Hai Wang, and Gudmundur F. Ulfarsson. "Modeling the Probability of Freeway Rear-End Crash Occurrence." *ASCE Journal of the Transportation Engineering*, Vol. 133 (1), 11-19, 2007.
29. Zheng^{*}, Jianyang, Yin Hai Wang, Nancy L. Nihan, and Mark Hallenbeck. "Extracting Roadway Background Image: a Mode-Based Approach." *Transportation Research Record*, No. 1944, 82-88, 2006.
30. Cheevarunothai^{*}, Patikhom, Yin Hai Wang, and Nancy L. Nihan. "Identification and Correction of Dual-Loop Sensitivity Problems." *Transportation Research Record*, No. 1945, 73-81, 2006.
31. Zhang^{*}, Guohui, Yin Hai Wang, and Heng Wei. "Artificial Neural Network Algorithm for Length-Based Vehicle Classification Using Single-Loop Data." *Transportation Research Record*, No. 1945, 100-108, 2006.
32. Zheng^{*}, Jianyang, Yin Hai Wang, Nancy L. Nihan, and Mark Hallenbeck. "Detecting Cycle Failures at Signalized Intersections Using Video Image Processing." *Computer-Aided Civil and Infrastructure Engineering*, Vol. 21(6), 425-435, 2006.
33. Tao, Ruihua, Heng Wei, Yin Hai Wang, and Virginia P. Sisiopiku. "Modeling Speed Disturbance Absorption Following State-Control Action-Expected Chains: Integrated Car-Following and Lane-Changing Scenarios." *Transportation Research Record*, No. 1934, 83-93, 2005.

34. Zhang, Xiaoping, Nancy L. Nihan, and Yin Hai Wang. "Improved Dual-Loop Detection System for Collecting Real-Time Truck Data." *Transportation Research Record*, No. 1917, 108-115, 2005.
35. Zhang, Xiaoping, Yin Hai Wang, Nancy L. Nihan, and Hu Dong. "Monitoring a Freeway Network in Real-Time Using Single-Loop Detectors: System Design and Implementation." *the International Journal of Vehicle Information and Communication Systems*, Vol. 1, No.1/2, 119-130, 2005.
36. Wang, Yin Hai and Nancy L. Nihan. "Dynamic Estimation of Freeway Large Truck Volume Based on Single Loop Measurements." *Journal of Intelligent Transportation Systems: Technology, Planning, and Operations*, Vol. 8 (3), 133-141, 2004.
37. Wang, Yin Hai and Nancy L. Nihan. "Estimating the Risk of Collisions between Bicycles and Automobiles at Signalized Intersections." *Accident Analysis and Prevention* 36(3), 313-321, 2004.
38. Zhang, Xiaoping, Yin Hai Wang, Nancy L. Nihan, and Mark Hallenbeck. "Development of a System for Collecting Loop Detector Event Data for Individual Vehicles." *Transportation Research Record*, No. 1855, 168-175, 2003.
39. Wang, Yin Hai, Hitoshi Ieda, and Fred L. Mannering. "Estimating Rear-End Accident Probabilities at Signalized Intersections: An Occurrence-Mechanism Approach." *ASCE Journal of Transportation Engineering*, Vol. 129(4), 1-8, 2003.
40. Wang, Yin Hai, and Nancy L. Nihan. "Can Single-Loop Detectors Do the Work of Dual-Loop Detectors?" *ASCE Journal of Transportation Engineering*, 129(2), 169 - 176, 2003.
41. Wei, Heng, Yin Hai Wang, and Qixin Shi. "Basics of ITS Standards and Their Requirements Packages." *Journal of Intelligent Transportation systems* (in Chinese), Vol. 12, No. 2, 11-15, 2002.
42. Wang, Yin Hai, Heng Wei, and Qixin Shi. "Introduction to the National ITS Architecture of the US." *Journal of Intelligent Transportation systems* (in Chinese), Vol. 11, No. 1, 2002, 6-10.
43. Wang, Yin Hai, Heng Wei, and Qixin Shi. "Current Status for ITS National Architecture Development." *Journal of Intelligent Transportation systems* (in Chinese), Vol. 9, No. 3, 9-16, 2001.
44. Wang, Yin Hai, and Nancy L. Nihan. "Freeway Speed Estimation Using Single Loop Outputs." *Transportation Research Record*, No. 1727, 120-126, 2000.
45. Wang, Yin Hai and Hitoshi Ieda. "Effects of Drivers' Age, Flow Rate and Some Other Road Environment Related Factors on Traffic Accidents at Four-Legged Signalized Intersections." *Journal of the Eastern Asia Society for Transportation Studies*, Vol.2, No. 5, 1723-1734, 1997.
46. Wang, Yin Hai, and Zuoyuan Wang. "A Study on Flood Destroyed Houses in Anhui Province." *Disaster Reduction in China* (in Chinese), Vol. 10, No. 4, 27-30, 1995.
47. Ye, Zhenxiang, Zuoyuan Wang, Yin Hai Wang, and Dongming Chen. "Shou Town's Planning and Flood Prevention." *Disaster Reduction in China* (in Chinese), Vol. 10, No.1, 21-23, 1995.
48. Wang, Yin Hai, Qixin Shi, and Rongpeng Xia. "A Cost Comparison between the Prefabricated Reinforced Concrete BOX Structure and the Masonry Structure." *Journal of Southeast University*, Vol. 11, No. 1A, 330-335, Oct. 1995.
49. Shi, Qixin, Xiangdong Wu, and Yin Hai Wang. "A Dynamic Analysis on Pre-stressed Concrete Bridges with Continuous Curvaceous Beams under Earthquake Loads." *Engineering Mechanics, special issue for the 2nd national conference on structural engineering* (in Chinese), 1110-1116, 1994.

Submitted:

50. Hou^{*}, Lin, Yunteng Lao^{*}, Yin Hai Wang, Zuo Zhang, Yi Zhang, and Zhiheng Li. "Exploring Time-Varying Effects of Influential Factors on Incident Clearance Time Using a Non-Proportional Hazard-based Model." Submitted to *Transportation Research Part A*. Sept. 2011.
51. Hou^{*}, Lin, Yunteng Lao^{*}, Yin Hai Wang, Zuo Zhang, Yi Zhang, and Zhiheng Li. "Modeling Freeway Incident Response Time: a Mechanism-based Approach." Submitted to *Transportation Research Part B*. Sept. 2011.
52. Yu^{*}, Runze, Yunteng Lao^{*}, Xiaolei Ma^{*}, and Yin Hai Wang. "Short-Term Traffic Flow Forecasting for Improved Estimates of Freeway Incident Induced Delays." Submitted to *Transportation Research Part C*. Sept. 2011.
53. Liu^{*}, Xiaoyue, Yin Hai Wang, Bastian Shroeder, and Nagui Roupail. "Quantifying Cross-Weave Impact on Capacity Reduction for Freeway Facilities with Managed Lanes." Submitted to *Transportation Research Record*. Aug. 2011.
54. Liu^{*}, Xiaoyue, Guohui Zhang^{*}, and Yin Hai Wang. "Modeling Traffic Flow Dynamics on Managed Lane Facility: a Cell Transmission Model based Approach." Submitted to *Transportation Research Record*. Aug. 2011.
55. Malinovskiy^{*}, Yegor, Nicolas Saunier, and Yin Hai Wang. "Pedestrian Travel Analysis Using Static Bluetooth Sensors." Submitted to *Transportation Research Record*. Aug. 2011.
56. Malinovskiy^{*}, Yegor, Kari Watkins, and Yin Hai Wang. "Bus Passenger Wait Time Estimation Using Bluetooth Sensors." Submitted to *Transportation Research Record*. Aug. 2011.
57. Lao^{*}, Yunteng and Yin Hai Wang. "Modeling Vehicle Crashes Using Generalized Nonlinear Model." Submitted to *Accident Analysis and Prevention*. Aug. 2011.
58. Fujisawa^{*}, Kaori, Brian Kemper, and Yin Hai Wang. "Freeway Incident Duration Estimation Using Naïve Bayesian Classifier and Evidence Theory under Uncertainty." Submitted to *Transportation Research Record*. Aug. 2011.
59. Shroeder, Bastian, Seyedbehzad Aghdashi, Nagui Roupail, Xiaoyue Liu^{*}, and Yin Hai Wang. "Deterministic Approach to Modeling Managed Lanes on Extended HCM Freeway Facilities." Submitted to *Transportation Research Record*. Aug. 2011.
60. Xu^{*}, Yaofang, Lei Yu, Guohui Song, Xiaoyue Liu, and Yin Hai Wang. "GA-based Approach to Operating Mode Distributions via Link Average Speeds." Submitted to *Transportation Research Record*. Aug. 2011.
61. Malinovskiy^{*} and Yin Hai Wang. "Pedestrian Travel Pattern Discovery Using Mobile Bluetooth Sensors." Submitted to *Transportation Research Record*. Aug. 2011.
62. Thomson^{*}, Timothy, Xiaoyue Liu^{*}, Yin Hai Wang, Bastian Shroeder, and Nagui Roupail. "Operational Performance and Speed-Flow Relationships for Basic Managed Lane Segments." Submitted to *Transportation Research Record*. Aug. 2011.
63. Ma^{*}, Xiaolei, Yin Hai Wang, Feng Chen, and Jianfeng Liu. "Transit Smart Card Data Mining for Passenger Origin Information Extraction." Submitted to *Transportation Research Record*. Aug. 2011.
64. Cao^{*}, Jing, Xiaoyue Liu^{*}, Yin Hai Wang, and Qingquan Li. "Accessibility Impacts of China's High-Speed Rail Network." Submitted to *Journal of Transport Geography*. July 20, 2011.
65. Malinovskiy^{*}, Yegor and Yin Hai Wang. "A Computer-Vision Algorithm for Automated Data Collection on Shared Pathways." Submitted to *IET Journal of Intelligent Transportation Systems*. April 2011.
66. Zhang^{*}, Guohui and Yin Hai Wang. "Self-Adaptive Dynamic Tolling Strategy for Optimal Operations on High Occupancy Toll Lanes." Submitted to *Transportation Research Part C*. March 2011.

67. Zhang^{*}, Guohui and Yin Hai Wang. "Optimizing Coordinated Ramp Metering – A Preemptive Hierarchical Control Approach." Submitted to *Computer-Aided Civil and Infrastructure Engineering*. Feb. 2011.
68. Malinovsky^{*}, Yegor, Un-Kun Lee, Yao-Jan Wu^{*}, and Yin Hai Wang. "Investigation of Bluetooth-Based Travel Time Estimation Error on a Short Corridor." Submitted to *Journal of Intelligent Transportation Systems*. Feb. 2011.
69. Manda, Harish, Ziqi Song, Yafeng Yin, and Yin Hai Wang. "Comparison of Capacities of High-Occupancy-Vehicle and General Purpose Lanes." Submitted to *Journal of Transportation Engineering*. Jan. 2011.
70. Lao^{*}, Yunteng, Yao-Jan Wu^{*}, Yin Hai Wang, and Kelly McAllister. "Fuzzy Logic-based Mapping Algorithm for Improving Animal-Vehicle Collision Data." Submitted to *Journal of Transportation Engineering*, Jan. 2011.
71. Cheevarunothai^{*}, Patikhom, Guohui Zhang^{*}, and Yin Hai Wang. "Quantifying Freeway Incident-Induced Delays Using Loop Detector Measurements." Submitted to *Journal of Intelligent Transportation Systems*. July 2010.
72. Zhang^{*}, Guohui, and Yin Hai Wang. "Examining Headway Distribution Models Using Loop Event Data Collected from Urban Multi-Lane Freeways." Submitted to *Transportation Science*. Apr. 2007.

Working Papers:

73. Cheevarunothai^{*}, Patikhom and Yin Hai Wang. "A Practical Algorithm for Identifying and Correcting Single-Loop Sensitivity Problems." To be submitted to *ASCE Journal of Transportation Engineering*, Dec. 2011.
74. Lao^{*}, Yunteng, Guohui Zhang^{*}, Jonathan Corey, and Yin Hai Wang. "Gaussian Mixture Model-based Speed Estimation and Vehicle Classification Using Single Loop Measurements." To be submitted to *Journal of Intelligent Transportation Systems*, Dec. 2011.
75. Yu^{*}, Runze, Yin Hai Wang, and Timothy Larson. "Quantifying the Relationship between Near-road Concentrations of Fine Particulate Matter and Traffic Flow Observations." To be submitted to *Transportation Research Part D*, Oct. 2011.
76. Perrine^{*}, Kenneth, Yunteng Lao^{*}, and Yin Hai Wang. "An Area-Wide System for Coordinated Ramp Meter Control." To be submitted to *Transportation Research Part C*. Oct. 2011.
77. Zheng^{*}, Jianyang, Yao-Jan Wu^{*}, Xiaolei Ma^{*}, Yin Hai Wang. "Measuring Signalized Intersection Performances in Real-Time with Traffic Sensors." To be submitted to *Transportation Research Part C*. Oct. 2011.

Conference proceedings and other non-journal articles

Fully refereed publications

1. Wu*, Yao-Jan, Mark Hallenbeck, and Yin Hai Wang. "Impacts of Freeway Traffic Congestion on En-route Traveler's Diversion." Proceedings of the 11th International Conference of Chinese Transportation Professionals (ICCTP 2011). August 2011.
2. Liu*, Xiaoyue, Guohui Zhang*, Yao-Jan Wu*, and Yin Hai Wang. "Measurement of Quality of Service for High Occupancy Toll Lane Operations." *Procedia - Social and Behavioral Sciences, Volume 16, 2011, Pages 15-25.*
3. Zhang*, Guohui, Yao-Jan Wu*, Xiaoyue Liu*, and Yin Hai Wang. "Impacts of High Occupancy Toll (HOT) Lane Operations on High Occupancy Vehicle (HOV) Travelers." *Proceedings of the 2010 IEEE ITS Conference*, September 2010.
4. Ma*, Xiaolei, Guohui Zhang, Jonathan Corey, and Yin Hai Wang. "A Pitfall to Avoid When Issuing Transit Signal Priority Treatments under Coordinated Control Strategies." Proceedings of the 10th International Conference of Chinese Transportation Professionals (ICCTP 2010). August 2010.
5. Malinovsky*, Yegor, Yao-Jan Wu*, Yin Hai Wang, and Un-Kun Lee. "Field Experiments on Bluetooth-based Travel Time Data Collection." *Preprint CD-ROM, the 89th Annual Meeting of Transportation Research Board*, Paper 10-3134. January 2010.
6. Miller, Gregory, Genevieve Farrar, Yin Hai Wang, and Peter Mackenzie. "Low-Cost Vehicle Detection Based on Simple Light Sensing." *Preprint CD-ROM, the 89th Annual Meeting of Transportation Research Board*, Paper 10-2705. January 2010.
7. Liu*, Xiaoyue, Guohui Zhang*, Yao-Jan Wu*, and Yin Hai Wang. "Analyzing System Performance for Washington State Route 167 High Occupancy Toll (HOT) Operations." *Preprint CD-ROM, the 89th Annual Meeting of Transportation Research Board*, Paper 10-2816. January 2010.
8. Wei, Heng, Yin Hai Wang, Abi Mogharabi, and Qingyuan (Ken) Yang. "Merging Roadside Signed Route Guidance Systems with ATIS/ATMS in A Mixed Roadway Network." *Proceedings of the 9th International Conference of Chinese Transportation Professionals (ICCTP 2009)*. August 2009.
9. Hwang, Hee-Jung, Un-Kun Lee, Kwang-Ryul Baek, Yao-Jan Wu*, and Yin Hai Wang. "Stereo Image Processing Algorithm for Preceding Vehicle Detection Using Lane-Related Information." *Preprint CD-ROM, the 88th Annual Meeting of Transportation Research Board*, Paper 09-0502. January 2009.
10. Zheng*, Jianyang, Xiaolei Ma*, Yin Hai Wang, and Yi Ping. "Measuring Signalized Intersection Performances in Real-Time with Traffic Sensors." *Preprint CD-ROM, the 88th Annual Meeting of Transportation Research Board*, Paper 09-3119. January 2009.
11. Wu*, Yao-Jan and Yin Hai Wang. "Google-Map-Based Online Platform for Arterial Traffic Information and Analysis." *Preprint CD-ROM, the 89th Annual Meeting of Transportation Research Board*, Paper 08-2944. January 2008.
12. Levy*, Atli, Yao-Jan Wu, and Yin Hai Wang. "Accident Risk Modeling for Two-Lane Rural Roads in Washington State." *Preprint CD-ROM, the 87th Annual Meeting of Transportation Research Board*, Paper 08-2365. January 2008.
13. Xu, Tianze, Heng Wei, Yin Hai Wang, and Anastasios M. Ioannides. "Modeling Capacity Reliability of Minor Roads at At-Grade Un-Signalized Intersections for Potential Operational Performance Evaluation." *Preprint CD-ROM, the 87th Annual Meeting of Transportation Research Board*, Paper 08-978. January 2008.

14. Qian, Dalin, Yin Hai Wang, Xiaohong Du, and Sansan Li. "Modeling the Micro-behavior Producing Interference between Bicycles and Vehicles at Intersections." Proceedings CD-Rom of the 14th World Congress on Intelligent Transportation Systems. Oct. 2007.
15. Wu^{*}, Yao-Jan, Yin Hai Wang, and Dalin Qian. "A Google-Map-Based Arterial Traffic Information System." Proceedings of the 10th International IEEE Conference on Intelligent Transportation Systems, 968-973, 2007.
16. Cheevarunothai^{*}, Patikhom, James Marlon Mooney^{*}, and Yin Hai Wang. "Statistical and Queuing Analyses of Freeway Incidents in Washington State." Proceedings of the 10th International IEEE Conference on Intelligent Transportation Systems, 204-208, 2007.
17. Malinovskiy^{*}, Y., Jianyang Zheng^{*}, and Yin Hai Wang. "A Simple and Model-Free Algorithm for Real-Time Pedestrian Detection and Tracking." Preprint CD-ROM, the 86th Annual Meeting of Transportation Research Board, Paper 07-2941. January 2007.
18. Zheng^{*}, Jianyang, Yin Hai Wang, Hongchao Liu, and Mark Hallenbeck. "Modeling the Impact of Near-Side Bus Stop on Transit Delays at Transit Signal Priority Enabled Intersections." Preprint CD-ROM, the 86th Annual Meeting of Transportation Research Board, Paper 07-2503. January 2007.
19. Zhang, Xiaoping, Nancy L. Nihan, and Yin Hai Wang. "A Robust Algorithm for Improved Dual-Loop Detection on Freeways." Preprint CD-ROM, the 85th Annual Meeting of Transportation Research Board, Paper 06-1920. January 2006.
20. Cheevarunothai^{*}, Patikhom, Yin Hai Wang, and Nancy L. Nihan. "Development of Advanced Loop Event Data Analyzer (ALEDA) for Investigations of Dual-Loop Detector Malfunctions." Proceedings of the 12th World Congress of Intelligent Transportation Systems, paper 000662, November 2005.
21. Zheng^{*}, Jianyang, Yin Hai Wang, and Nancy L. Nihan. "Quantitative Evaluation of GPS Performance under Forest Canopies." Proceedings of the 2005 IEEE International Conference on Networking, Sensing, and Control. 777-782. Mar. 2005.
22. Avery^{*}, Ryan P., Yin Hai Wang, and Nancy L. Nihan. "A Region Growing Algorithm for Estimating Freeway Traffic Speed from Single Loops." Preprint CD-ROM, the 84th Annual Meeting of Transportation Research Board, Paper 05-2045. January 2005.
23. Avery^{*}, Ryan P., Yin Hai Wang, and G.S. Rutherford. "Length-Based Vehicle Classification Using Images from Uncalibrated Video Cameras." Proceedings of the 7th International IEEE Conference on Intelligent Transportation Systems. 737-742. Oct. 2004.
24. Wang, Yin Hai, and Nancy L. Nihan. "Dynamic Estimation of Freeway Speed Using Single-Loop Measurements." Proceedings of the 8th World Multi-Conference on Systemics, Cybernetics and Informatics, Vol. VII, 396-401. July 2004.
25. Wang, Yin Hai, and Nancy L. Nihan. "Quantitative analysis on angle-accident risk at signalized intersections." World Transport Research, Selected Proceedings of the 9th World Conference on Transport Research. Pergamon Press. Oct. 2003. Seoul, Korea.
26. Salido, Javier, Masanori Nakahara, and Yin Hai Wang. "An Analysis of Internet Reachability Using BGP Data." Proceedings of the Third IEEE Workshop on Internet Applications (WIAPP 2003). June 2003, 10 -18.
27. Zheng^{*}, Jianyang, Yin Hai Wang, and Nancy L. Nihan. "Tracking Vehicles: Is GPS a Sufficient Solution?" Proceedings of the 13th Annual Meeting of ITS America (CD-Rom). Paper 169. May 2003.
28. Zhang, Xiaoping, Yin Hai Wang, and Nancy L. Nihan, "Investigation on Dual-Loop Errors Using Video Ground-Truth Data." Proceedings of the 13th Annual Meeting of ITS America (CD-Rom). Paper 158. May 2003.

29. Wang, Yin Hai, Xiaoping Zhang, and Nancy L. Nihan. "Monitoring Freeway Congestion Using Single Loop Measurements." *Proceedings of the 12th Annual Meeting of ITS America (CD-Rom)*, Paper 68. May 2002.
30. Wang, Yin Hai, Hitoshi Ieda. "Using Accident Observations to Evaluate Rear End Accident Risk at Four-Legged Signalized Intersections." *World Transport Research, Selected Proceedings of the 8th World Conference on Transport Research*, Vol. 2, 123-136, 1999.
31. Wang, Yin Hai, Kiyoshi Takahashi, and Koji Saito. "A Study on the Fitness of Linear, Poisson and Negative Binomial Regression Models on Accident Frequency at Four-legged Signalized Intersections." *Proceedings of the Second Japan-China Bilateral Symposium on Safety and Environment Engineering*, 132-137, Japan, 1997.

Refereed by abstract only

None.

Complete books written

Klein, Lawrence and Yin Hai Wang. *Sensor Technologies and Data Requirements for ITS*. Second Edition. Artech House, Norwood, MA. Work in progress. Publication expected in June 2012.

Parts of books (chapters in edited books)

Wang, Yin Hai and Ryan P. Avery. "Multi-Purpose Applications of Roadway Surveillance Video Cameras." Chapter 11 in *Bringing ITS All Together*. Edited by Shila H. Conway. Trafford Publishing. 2007.

Books edited

1. Yin, Yafeng, Yin Hai Wang, Jian Lu, and Wei Wang. *ICCTP 2011: Mobility, Safety, Efficiency, and Sustainability in Transportation System Development*. American Society of Civil Engineers. 2011.
2. Wei, Heng, Yin Hai Wang, Jian Rong, and Jiancheng Weng. *ICCTP 2010: Integrated Transportation Systems: Green • Intelligent • Reliable*. American Society of Civil Engineers. 2010.
3. Wang, Yin Hai, Ping Yi, Shi An, and Hua Wang. *ICCTP 2009: Critical Issues in Transportation System Planning, Development, and Management*. American Society of Civil Engineers. 2009.

Journal issues edited

None.

Patents submitted and/or awarded

1. Mobile System and Method for Traffic Detector Simulations, Patent No. US 7,786,855 B2. Received on August 31, 2010.
2. USPTO Provisional Patent Application: Spatiotemporal System for Video-based Vehicle Detection, filed on Jan. 8, 2010.

Abstracts, letters, non-refereed papers, technical reports

Abstracts:

1. Liu^{*}, Xiaoyue, Guohui Zhang^{*}, and Yin Hai Wang. "Quantifying Dynamic Tolling Impacts on Single Occupancy Vehicles' Usage of High Occupancy Toll Lanes: an Empirical Approach Based on Field Observations." *Innovations in Pricing of Transportation Systems: Workshop and Conference*, Lake Buena Vista, Florida, May 13, 2010.

2. Cheevarunothai*, Patikhom, Runze Yu*, and Yin Hai Wang. "Using Advanced Loop Event Data Analyzer to Tune-up Dual-Loop Detectors for Improved Truck and Speed Data." NATMAC 2010. Seattle, WA. July 2010.
3. Wu*, Yao-Jan, Jonathan Corey*, and Yin Hai Wang. "High-resolution Detector Data Collection and Storage for Real-time Intersection Performance Measurement." NATMAC 2010. Seattle, WA. July 2010.
4. Malinovskiy*, Yegor, Yao-Jan Wu*, Yin Hai Wang, and Un-Kun Lee. "Field Experiments on Bluetooth-based Travel Time Data Collection." NATMAC 2010. Seattle, WA. July 2010.
5. Wang, Yin Hai, Yao-Jan Wu, Jonathan Corey, and Xiaolei Ma. "Digital Roadway Interactive Visualization and Evaluation Network (DRIVE Net)." NATMAC 2010. Seattle, WA. July 2010.
6. Liu*, Xiaoyue, Guohui Zhang*, Yao-Jan Wu*, and Yin Hai Wang. "Monitoring High Occupancy Toll (HOT) System Performance using Traffic Data." NATMAC 2010. Seattle, WA. July 2010.
7. Cheevarunothai*, Patikhom and Yin Hai Wang. "An Affordable Loop Detector Simulator (LOOPSIM) for In-Laboratory Traffic Research and Training." NATMAC 2010. Seattle, WA. July 2010.
8. Malinovskiy*, Yegor, Yao-Jan Wu*, and Yin Hai Wang. "A Computer-Vision System for Automated Pedestrian and Cyclist Data Collection." NATMAC 2010. Seattle, WA. July 2010.
9. Lee, Un-Kun, Yao-Jan Wu*, Jonathan Corey*, and Yin Hai Wang. "Development and Implementation of Low-cost, Programmable Piezoelectric Vehicle Detection System for Traffic Monitoring." NATMAC 2010. Seattle, WA. July 2010.
10. Zhang*, Guohui Zhang, Yegor Malinovskiy*, Yao-Jan Wu*, Yin Hai Wang, Matt Neely, and Ted Bailey. "A Video-based Vehicle Detection and Classification System for Real-Time Traffic Data Collection Using Un-calibrated Video Cameras." NATMAC 2010. Seattle, WA. July 2010.
11. Cheevarunothai*, Patikhom and Yin Hai Wang. "Identification and Correction of Inductance Loop Sensitivity Problems." 2009 International Conference for Chinese Transportation Professionals. Harbin, China. August 2009.
12. Zhang*, Guohui and Yin Hai Wang. "A Self-Adaptive Dynamic Tolling Algorithm (SADTRA) for High Occupancy Toll Lane Operations." *Second International Symposium for Freeway and Toll Way Operations*. Hawaii. June 2009.
13. Cheevarunothai*, Patikhom and Yin Hai Wang. "Quantifying Incident-Induced Travel Delays Using Traffic Sensor Data." *Second International Symposium for Freeway and Toll Way Operations*. Hawaii. June. 2009.
14. Fujisawa*, Kaori, Brian Kemper, Yin Hai Wang. "Integrated Corridor Management in Seattle." TRB Integrated Corridor Management Workshop. Irvine, California. June 2009.
15. Zhang*, Guohui and Yin Hai Wang. "Determining Toll Rate Dynamically Based on Real-Time Traffic Sensor Measurements." 2008 Freeway and Toll Way Operations Conference. Florida. June 2008.

Non-refereed papers:

1. Koji, Saito, Yin Hai Wang, Kiyoshi Takahashi, and Hitoshi Ieda. "A Study on Intersection Angle Accident Risk with Drivers' PRT Considered." *Proceedings of the 53rd annual conference of the Japan Society of Civil Engineers* (in Japanese), No. 4, 476-477, 1998.
2. Wang, Yin Hai, Kiyoshi Takahashi, and Hironori Kato. "Elderly Drivers' Features and Their Effects on Accident Risk." *Proceedings of the 24th annual conference of the East Japan Society of Civil Engineers*, No. 4, 478-479, 1997.

3. Wang, Yin Hai, Hitoshi Ieda, and Hironori Kato. "Traffic Safety under Mixed Traffic Condition in Beijing." *Proceedings of the 51st annual conference of the Japan Society of Civil Engineers*, No. 4, 314-315, 1996.

Technical reports:

1. Wang, Yin Hai, Yegor Malinovskiy, Yao-Jan Wu, and Un Kun Lee. Error Modeling and Analysis for Travel Time Data Obtained from Bluetooth MAC Address Matching. Transportation Northwest (TransNow) Research Report TNW2010-05. Oct. 2010.
2. Wang, Yin Hai, Yao-Jan Wu, Xiaolei Ma, and Jonathan Corey. Real-time Travel Time Prediction on Urban Traffic Network. Transportation Northwest (TransNow) Research Report TNW2010-06. Oct. 2010.
3. Wang, Yin Hai, Runze Yu, Yunteng Lao, and Timothy Thomson. Quantifying Incident-Induced Travel Delays on Freeways Using Traffic Sensor Data: Phase II. Transportation Northwest (TransNow) and Washington State Department of Transportation (WSDOT) Research Report WA-RD 752.3/TNW 2010-07. June 2010.
4. Wang, Yin Hai, Yunteng Lao, Yao-Jan Wu, and Jonathan Corey. Identifying High Risk Locations of Animal-Vehicle Collision for Washington State Highways. Transportation Northwest (TransNow) and Washington State Department of Transportation (WSDOT) Research Report WA-RD 752.1/TNW 2010-04. June 2010.
5. Wang, Yin Hai and Guohui Zhang. A Self-Adaptive Toll Rate Algorithm for High Occupancy Toll (HOT) Lane Operations. Transportation Northwest (TransNow) Research Report TNW2009-09. Oct. 2009.
6. Wang, Yin Hai, Jonathan Corey, Yunteng Lao, and Yaojan Wu. Development of a Statewide Online System for Traffic Data Quality Control and Sharing. Transportation Northwest (TransNow) Research Report TNW2009-12. Oct. 2009.
7. Wang, Yin Hai, Yegor Malinovskiy, and Yao-Jan Wu. Occlusion Robust and Environment Insensitive Algorithm for Vehicle Detection and Tracking Using Surveillance Video Cameras. Transportation Northwest (TransNow) Research Report TNW2008-12. Oct. 2008.
8. Wang, Yin Hai, Kenneth Perrine, and Yunteng Lao. Developing an Area-Wide System for Coordinated Ramp Meter Control. Transportation Northwest (TransNow) Research Report TNW2008-11. Oct. 2008.
9. Wang, Yin Hai, Patikhom Cheevarunothai, and Mark Hallenbeck. Quantifying Incident-Induced Travel Delays on Freeways Using Traffic Sensor Data. Transportation Northwest (TransNow) and Washington State Department of Transportation (WSDOT) Research Report TNW2008-07/WA-RD 700.1. May 2008.
10. Wang, Yin Hai, Ngan Ha Nguyen, Atli Björn E. Levy, and Yao-Jan Wu. Cost Effective Safety Improvements for Two-Lane Rural Roads. Transportation Northwest (TransNow) Research Report TNW2008-04. Mar. 2008.
11. Wang, Yin Hai, Guohui Zhang, Jonathan Corey, and Cyrus Shahrivar. Side-by-side Evaluation of VVDC and Citilog's Media TD Video Detection Systems. Research Report for Washington State Department of Transportation, Agreement T4118, Aug. 2007.
12. Wang, Yin Hai, Mark Hallenbeck, Jianyang Zheng, and Guohui Zhang. *Comprehensive Evaluation on Transit Signal Priority System Impacts Using Field Observed Traffic Data (Final Report)*. Transportation Northwest (TransNow) Research Report. Apr. 2007.
13. Wang, Yin Hai, Nancy L. Nihan, and Ryan P. Avery. *Improving Truck and Speed Data using Paired Video and Single-Loop Sensors*. Washington State Department of Transportation (WSDOT) and Transportation Northwest (TransNow) Joint Research Report TNW2006-01/WA-RD-656.1. Sept. 2006.

14. Wang, Yin Hai, Jianyang Zheng, and Guohui Zhang. *Comprehensive Evaluation on Transit Signal Priority System Impacts Using Field Observed Traffic Data (Phase One)*. Transportation Northwest (TransNow) Research Report TNW2006-10. Sept. 2006.
15. Nihan, Nancy L., Yin Hai Wang, and Patikhom Cheeverunothai. *Improving Dual-Loop Truck (and Speed) Data: Quick Detection of Malfunctioning Loops and Calculation of Required Adjustments*. Transportation Northwest (TransNow) Research Report TNW2006-02/WA-RD-647.1. June 2006.
16. Nihan, Nancy L., Yin Hai Wang, and Xiaoping Zhang. *Improved Dual-Loop Detection System for Collecting Real-Time Truck Data*. Transportation Northwest (TransNow) Research Report TNW2005-02. Feb. 2005.
17. Zhang, Xiaoping, Nancy L. Nihan, and Yin Hai Wang. *Evaluation of Dual-Loop Data Accuracy Using Video Ground Truth Data: Dual Loop Error*. Washington State Department of Transportation Research Report. WA-RD 535.1/TNW 2002-02. Jan. 2002.
18. Wang, Zuoyuan, Yin Hai Wang, Zhenxiang Ye and Dongming Chen. *An investigation on infrastructure damage caused by 1991's flood in Anhui Province*. Research report for the China Science Foundation (in Chinese), May 1995.

Other significant research dissemination (web sites, software, Wikis, etc.)

1. Xiaolei Ma, Yao-Jan Wu, and Yin Hai Wang, "Digital Roadway Interactive Visualization and Evaluation Network (DriveNet) Version 2.0", Coded using Google toolkits, 2010.
2. Yegor Malinovskiy, Yao-Jan Wu, Yunteng Lao, and Yin Hai Wang, "Media Access Address Based Traffic Data Collection System", Coded in Python, 2008.
3. Patikhom Cheeverunothai and Yin Hai Wang, "Advanced Roadway Incident Analyzer (ARIA)", Coded in C#, 2008.
4. Yao-Jan Wu and Yin Hai Wang, "Google-Map Based Traffic Information System", developed using a set of open source technologies and C#, 2007.
5. Yegor Malinovskiy, Jianyang Zheng, and Yin Hai Wang, "Video-Based Pedestrian Tracking System", coded in C# and C++, 2006.
6. Ryan Avery and Yin Hai Wang, "A Length-Based Vehicle Classification System Using Uncalibrated Video Images", coded in C#, 2005.
7. Jianyang Zheng and Yin Hai Wang, "Mode-Based Background Extraction", coded in C#, 2005.
8. Patikhom Cheeverunothai and Yin Hai Wang, "Advanced Loop Event Data Analyzer (ALEDA)", Coded in C#, 2005.
9. Patikhom Cheeverunothai and Yin Hai Wang, "LOOP detector SIMulator (LOOPSIM)", coded in C#, 2004.
10. Jianyang Zheng and Yin Hai Wang, "Cycle Failure Detection System", coded in C#, 2004.
11. Yin Hai Wang, "Content-Based Image Retrieval System", coded in Visual C++, 2003.
12. Yin Hai Wang, "Single-Loop Event Data Based Vehicle Classifier", coded in C#, 2003.
13. Yin Hai Wang, "Real-Time Traffic Information System", coded in C# and C++, 2002.
14. Yin Hai Wang and TransNow ITS Group, "Real-Time Loop Detector Data Pump", coded in C#, 2002.
15. Yin Hai Wang and TransNow ITS Group, "Detector Event Data Collection (DEDAC) System", coded in C, 2002.
16. Yin Hai Wang and Qasim Zuhair, "Travel Reservation System", coded in Java, 2001.

17. Yin Hai Wang, "Virtual Dual-Loop Detector", coded in Visual C++, 2001.
18. Yin Hai Wang, "Duck Show", a computer animation cartoon coded in C using Open GL, 2000.
19. Yin Hai Wang, "Traffic Accident Data Management System", coded in Java, 2000.

OTHER SCHOLARLY ACTIVITY

Invited lectures and seminars.

1. The 2011 Annual Meeting of ITS Washington. "Digital Roadway Interactive Visualization and Evaluation Network: DRIVE Net." Nov. 1, 2011.
2. China Academy of Transportation Sciences. "Transportation Data and E-Science of Transportation." Aug. 27, 2011.
3. Keynote speech at the 11th International Conference of Chinese Transportation Professionals (ICCTP 2010). "HOT Lane Gets Hot: Tolling for Travel Reliability and Sustainability." August 16, 2011.
4. Western Harbin Development Committee. "Integrating Data for Traffic Management Decisions." July 8, 2011.
5. Chinese People's University of Public Security. "Applying Information Technologies to Intelligent Traffic Management." July 5, 2011.
6. Transportation Research Board Highway Capacity and Quality of Services Committee Research Workshop. "DRIVE Net: a New Research Platform for Highway Capacity and Quality of Services." Stockholm, Sweden, July 2, 2011.
7. University Transportation Research Center 2 at City College of New York. "HOT Lane Gets Hot: Field Observations and Scientific Investigations on HOT Issues." December 10, 2010.
8. University of Maryland. "Collecting Pedestrian and Cyclist Movement Data Using Surveillance Video Cameras." December 3, 2010.
9. University of Akron. "DRIVE Net: An E-Science Transportation Platform for Data Sharing, Modeling, and Visualization." November 4, 2010.
10. Royal Institute of Technology (KTH). "DRIVE Net: An E-Science Transportation Platform for Data Sharing, Modeling, and Visualization." September 17, 2010, Stockholm, Sweden.
11. Norwegian University of Science and Technology (NTNU). "Capturing Live Traffic: Detection Research at the STAR Lab." September 15, 2010, Trondheim, Norway.
12. Traffic Safety Workshop at Tongji University, Shanghai, China. "Diagonal Inflated Bivariate Poisson Model for Animal Vehicle Collisions." August 9, 2010.
13. Keynote speech at the 10th International Conference of Chinese Transportation Professionals (ICCTP 2010). "An E-Science of Transportation Platform: DriveNet." August 6, 2010.
14. Workshop for the 10th International Conference of Chinese Transportation Professionals. "Review Procedures for English Journal Articles." Aug. 4, 2010.
15. China State Laboratory of Information Science and Technology Seminar at Tsinghua University, Beijing, China. "Toward a Controllable System to Ensure Reliable Freeway Travel." June 7, 2010.
16. Beijing Jiaotong University. "Flat-Rate Transit Intelligent Card Data Mining for Improved Passenger Origin-Destination Data." June 4, 2010.
17. Future Transportation Technologies Symposium at Harbin Institute of Technology, Harbin, China. "Traffic Information Extraction and Quality Control on Field Sensors Measurements." May 26, 2010.

18. Tongji University Graduate Seminar, Shanghai China. "Making Freeway a Controllable System." May 5, 2010.
19. Washington State Department of Transportation Congestion Workshop. "Incident-Induced Delay Estimation Using Traffic Sensor Data." April 19, 2010.
20. Beijing Transportation Research Center. "Intelligent Card Transaction Data Mining for Flat-Rate Transit Passengers." April 16, 2010.
21. Beijing Transportation Research Center. "Automatic Traffic Data Collection Using Surveillance Videos Cameras." April 9, 2010.
22. Beijing Jiaotong University Graduate Seminar in Software Applications. "Driver Behavior Models and Simulation Examples." April 8, 2010.
23. Beijing Jiaotong University Graduate Seminar in Software Applications. "Traffic Control and Simulation Introduction." April 6, 2010.
24. Puget Sound Regional Council. "Digital Roadway Interactive Visualization and Evaluation Network." April 1, 2010.
25. Beijing Transportation Research Center. "Loop Detector Tune Up and Single-Loop based Vehicle Classification." February 5, 2010.
26. Simulation workshop at the 2010 Annual Meeting of Transportation Research Board. "Simulation on Customized Dynamic Tolling Strategies for HOT Lane Operations." January 10, 2010.
27. Research subcommittee meeting for AHB35 at the 2010 Annual Meeting of Transportation Research Board. "Analysis of Managed Lanes on Freeway Facilities." January 11, 2010.
28. Research subcommittee meeting for AHB20 at the 2010 Annual Meeting of Transportation Research Board. "NCHRP 03-96 Update." January 10, 2010.
29. USDOT Traffic Sensor Workshop, Washington DC. "Effective and Practical Method and Tool for Loop Detector Tune-Up." December 2, 2009.
30. Institute of Rock and Soil Mechanics, China Academy of Science, Wuhan. "Video-based Vehicle Detection and Classification." November 27, 2009.
31. State Key Lab of Information Engineering in Surveying, Mapping and Remote Sensing, Wuhan University, Wuhan, China. "Traffic Sensing and ITS Research at the STAR Lab." November 27, 2009.
32. Beijing Transportation Research Center, Beijing, China. "STAR Lab Research Introduction." November 20, 2009.
33. USDOT National Speed Summit, Tampa, Florida. "Traffic Speed Data Extraction and Quality Control." November 4, 2009.
34. Washington State DOT Annual Traffic Engineers Meeting, Vancouver, Washington. "Bluetooth-based Travel Time Data Collection." October 13, 2009.
35. TRB Joint Summer Meeting, Seattle, Washington. "Traffic Information Extraction and Quality Control: Cost-Effective Hardware and Software Solutions." July 20, 2009.
36. ITE Washington 2009 Annual Meeting, Tulalip, Washington, "Cost-Effective Traffic Data Collection Using Bluetooth MAC Address Matching." June 8, 2009.
37. Urban Traffic Engineer's Council (UTEC) Meeting, Kent, Washington, "Travel Time via Bluetooth: A Feasibility Study." Feb. 12, 2009.
38. New Technology Subcommittee Meeting (ABJ40(4)), Transportation Research Board, Washington DC, "Pedestrian and Bicycle Data Collection Using Video Imaging." Jan. 12, 2009.

39. Freeway Simulation Subcommittee Meeting (AHB20(2)), Transportation Research Board, Washington DC, "Simulating Dynamic Tolling Impacts for HOT Lane Operations: Approach and Implementation." Jan. 11, 2009.
40. Annual Meeting of ITS Washington, Bellevue, Washington, "Bluetooth-based Traffic Data Collection Technologies and Potential Applications." Nov. 12, 2008.
41. Beijing Jiaotong University, Beijing, China, "Freeway Incident Impacts and Operational Strategies." Sept. 15, 2008.
42. Beijing Transportation Research Center, Beijing, China, "Traffic Sensing and Information Extraction: Challenges and Opportunities." Sept. 16, 2008.
43. Tongji University, Shanghai, China, "Traffic Detection Technologies: Current Status and Future Directions." June 27, 2008.
44. Beijing Jiaotong University, Beijing, China, "Traffic Detection Technologies: Current Status and Future Directions." June 25, 2008.
45. Tsinghua University, Beijing, China, "Traffic Detection Technologies: Current Status and Future Directions." June 24, 2008.
46. Portland State University, Portland, Oregon, "Loop Detector Tune Up with ALEDA." Sept. 19, 2007.
47. Dalian University of Technology short course, Dalian, China, "Traffic Detection Systems and Applications." Aug. 29 – Sept. 2, 2007.
48. Microsoft Research Asia, Beijing, "What Is Computer Engineers' Role in Fighting Against Traffic Congestion?" August 27, 2007.
49. University of California at Davis, Davis, "Fighting for Better Traffic Data: What Are We Doing at the STAR Lab?" June 26, 2007.
50. Annual Meeting of ITS Washington, Bellevue, Washington, "Video Image Processing Research at the STAR Lab", Oct. 3, 2006.
51. Harbin Institute of Technology, Harbin, China. "Traffic Detection Research in the STAR Lab." Aug. 25, 2005.
52. The 2nd Kobe University –University of Washington International Symposium on Design Strategy towards Safety and Symbiosis of Urban Space, Kobe, Japan, "Monitoring Freeway Systems in Real Time Using Existing Traffic Sensors." June 26, 2005.
53. ITS Committee of the Japan Society of Civil Engineers, "Traffic Detection Systems in ITS Applications." June 23, 2005.
54. The Second Symposium for the ABC's of Integrating Intelligent Transportation Systems (ITS), Public Safety, Security, and Emergency Management. Las Vegas, "Application of Cameras for Traffic Video Detection and Public Security." June 1, 2005.
55. Beijing University of Technology, China, "Future Transportation Technologies." Sept. 9, 2004.
56. Beijing Jiaotong University, Beijing, China, "ITS Research and Technologies", Sept. 8, 2004.
57. Tsinghua University short course, Beijing, China, "Introduction to Traffic Detection Systems." Aug. 30 – Sept. 10, 2004.
58. Washington State Department of Transportation Advanced Technology Branch (ATB) Seminar, Olympia, "Dual Loop Detector Tune Up for Better Truck and Speed Data." Mar. 23, 2004.
59. Portland State University, Portland, "Monitoring Freeway Systems in Real Time Using Existing Single-Loop Detectors." Oct. 31, 2003.

60. Strategic Planning Seminar, Port Authority of New York & New Jersey, "Future Transportation Technologies." Aug. 7, 2003.
61. Radio Frequency Identification (RFID) Workshop, Seattle, "Tracking Vehicles with Integrated Systems of GPS and INS." June 18, 2003.
62. Institute of Transportation Research, Tsinghua University, China, "Recent Developments in Traffic Safety Study." Oct. 7, 1998.
63. Traffic Study Symposium, University of Tokyo, Japan, "Negative Binomial Regression Models for Intersection Accident Risk Evaluation." Sept. 24, 1998.

Presentations and posters given at conferences.

1. Corey, Jonathan, Yunteng Lao, Xin Xin, and Yin Hai Wang. "Criteria for Advanced Traffic Signal System Selections." To be presented by **Jonathan Corey** at the 2011 Annual Meeting of ITS Washington, Nov. 2011, Seattle.
2. Wu *, Yao-Jan, Mark Hallenbeck, and Yin Hai Wang. "Impacts of Freeway Traffic Congestion on En-route Traveler's Diversion." Presented by **Yao-Jan Wu** at the 11th International Conference of Chinese Transportation Professionals (ICCTP 2011). August 2011.
3. Liu *, Xiaoyue, Guohui Zhang *, Yao-Jan Wu *, and Yin Hai Wang. "Measurement of Quality of Service for High Occupancy Toll Lane Operations." Presented by **Yin Hai Wang** at the 6th International Symposium on Highway Capacity and Quality of Services, Stockholm, Sweden, June 2011.
4. Malinovskiy, Yegor and Yin Hai Wang. "Cost-Effective Travel Time Data Collection." Presented by **Yegor Malinovskiy** at the 2011 the Institute of Transportation Engineers Annual Quad-Section Conference, April 2011.
5. Wu *, Yao-Jan, Guohui Zhang *, and Yin Hai Wang. "Link Journey Speed Estimation for Urban Arterial Performance Measurement using Advance Loop Detector Data under Congested Conditions." Presented by **Yao-Jan Wu** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
6. Wu *, Yao-Jan, Xiaolei Ma*, and Yin Hai Wang. "Development of Web-Based Arterial Network Analysis System for Real-Time Decision Making." Presented by **Yao-Jan Wu** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
7. Corey *, Jonathan, Yunteng Lao *, and Yin Hai Wang. "Detection and Correction of Inductive Loop Detector Sensitivity Errors Using Gaussian Mixture Models." Presented by **Jonathan Corey** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
8. Liu *, Xiaoyue, Guohui Zhang, and Yin Hai Wang. "Quantifying the Attractiveness of High Occupancy Toll Lanes under Various Traffic Conditions Using Traffic Sensor Data." Presented by **Xiaoyue Liu** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
9. Malinovskiy *, Yegor, Un-Kun Lee, Yao-Jan Wu *, and Yin Hai Wang. "Investigation of Bluetooth-Based Travel Time Estimation Error on a Short Corridor." Presented by **Yegor Malinovskiy** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
10. Lao *, Yunteng, Guohui Zhang *, Yao-Jan Wu *, and Yin Hai Wang. "Modeling Animal-Vehicle Collisions Considering Animal-Vehicle Interactions." Presented by **Yunteng Lao** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
11. Ma *, Xiaolei, Yao-Jan Wu *, and Yin Hai Wang. "DRIVE Net: An E-Science of Transportation Platform for Data Sharing, Visualization, Modeling, and Analysis." Presented by **Yin Hai**

- Wang** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
12. Ma^{*}, Xiaolei, Edward McCormack, and Yin Hai Wang. "Processing Commercial GPS Data to Develop a Web-based Freight Performance Measures Program. Presented by **Edward McCormack** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
 13. Liu^{*}, Xiaoyue, Bastian J. Schroeder, Timothy Thomson^{*}, Yin Hai Wang, Nagui Roupail, and Yafeng Yin. "Analysis on Operational Intersections between Freeway Managed Lanes and Parallel General Purpose Lanes." Presented by **Cathy Liu** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
 14. Manda, Harish, Ziqi Song, Yafeng Yin, and Yin Hai Wang. "Comparison of Capacities of High-Occupancy-Vehicle and General Purpose Lanes." Presented by **Yafeng Yin** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
 15. Yu^{*}, Runze, Yunteng Lao^{*}, Xiaolei Ma^{*}, and Yin Hai Wang. "Short-Term Traffic Flow Forecasting for Improved Estimates of Freeway Incident Induced Delays." Presented by **Runze Yu** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
 16. Lao^{*}, Yunteng, Yao-Jan Wu^{*}, Yin Hai Wang, and Kelly McAllister. "Fuzzy Logic-based Mapping Algorithm for Improving Animal-Vehicle Collision Data." Presented by **Yunteng Lao** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
 17. Lao^{*}, Yunteng, Yao-Jan Wu^{*}, Jonathan Corey^{*}, and Yin Hai Wang, "Modeling Animal-Vehicle Collisions Using Diagonal Inflated Bivariate Poisson Regression." Presented by **Yunteng Lao** at the 90th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2011.
 18. Zhang^{*}, Guohui and Yin Hai Wang. "Critical-Damping Control Strategy for High Occupancy Toll Lane Operation Optimization." Presented by **Guohui Zhang** at the 2010 Annual Meeting of Informs, Austin, Texas, Nov. 2010.
 19. Zhang^{*}, *Guohui*, Yao-Jan Wu, Xiaoyue Liu^{*}, and Yin Hai Wang. "Impacts of High Occupancy Toll Lane Operations on High Occupancy Vehicle Travelers." Presented by **Yin Hai Wang** at the 2010 IEEE ITS Conference, Madeira Island, Portugal, September 22, 2010.
 20. Ma^{*}, Xiaolei, Guohui Zhang^{*}, Jonathan Corey^{*}, and Yin Hai Wang. "A Pitfall to Avoid When Issuing Transit Signal Priority Treatments under Coordinated Control Strategies." Presented by **Xiaolei Ma** at the *10th International Conference of Chinese Transportation Professionals (ICCTP 2010)*. Beijing, August 6, 2010.
 21. Cheevarunothai^{*}, Patikhom and Yin Hai Wang. "An Affordable Loop Detector Simulator (LOOPSIM) for In-Laboratory Traffic Research and Training." Presented by **Yin Hai Wang** at the 2010 North America Travel Monitoring Exposition and Conference (NATMEC 2010), Seattle, June 21-24, 2010.
 22. Miller, Gregory, Genevieve Farrar, Yin Hai Wang, and Peter Mackenzie. "Low-Cost Vehicle Detection Based on Simple Light Sensing." Presented by **Greg Miller** at the 2010 North America Travel Monitoring Exposition and Conference (NATMEC 2010), Seattle, June 21-24, 2010.
 23. Cheevarunothai^{*}, Patikhom, Runze Yu^{*}, and Yin Hai Wang. "Using Advanced Loop Event Data Analyzer to Tune-up Dual-Loop Detectors for Improved Truck and Speed Data." Presented by **Runze Yu** at NATMEC 2010, Seattle, June 21-24, 2010.

24. Liu^{*}, Xiaoyue, Guohui Zhang^{*}, Yao-Jan Wu^{*}, and Yin Hai Wang. "Monitoring High Occupancy Toll (HOT) System Performance using Traffic Data." to be presented by **Cathy Liu** at NATMEC 2010, Seattle, June 21-24, 2010.
25. Wu^{*}, Yao-Jan, Jonathan Corey^{*}, and Yin Hai Wang. "High-resolution Detector Data Collection and Storage for Real-time Intersection Performance Measurement." Presented by **Yao-Jan Wu** at NATMEC 2010, June 21-21, 2010.
26. Malinovskiy^{*}, Yegor, Yao-Jan Wu^{*}, and Yin Hai Wang. "A Computer-Vision System for Automated Pedestrian and Cyclist Data Collection." Presented by **Yegor Malinovskiy** at NATMEC 2010, Seattle, June 21-24, 2010.
27. Malinovskiy^{*}, Yegor, Yao-Jan Wu^{*}, and Yin Hai Wang. "Field Experiments on Bluetooth-based Travel Time Data Collection." Presented by **Yin Hai Wang** at NATMEC 2010, Seattle, June 21-24, 2010.
28. Malinovskiy^{*}, Yegor, Yin Hai Wang, Yao-Jan Wu^{*}, and Un-Kun Lee. "Bluetooth-based Travel Time Data Collection." Presented by **Yegor Malinovskiy** at the 2010 Western States Rural Transportation Technology Implementers Forum, Yreka, California, June 16, 2010.
29. Corey^{*}, Jonathan, Yunteng Lao^{*}, and Yin Hai Wang. "Software-based Approach for Loop Detector Error Detection and Correction." Presented by **Jonathan Corey** at the ITE Washington 2010 Annual Meeting. Bellevue, Washington, June 2010.
30. Yu^{*}, Runze and Yin Hai Wang. "Quantifying the Relationship between Near-road Concentrations of Black Carbon and Traffic Flow Observations." Presented by **Runze Yu** at the ITE Washington 2010 Annual Meeting. Bellevue, Washington, June 2010.
31. Wu^{*}, Yao-Jan, Jonathan Corey, and Yin Hai Wang. "Digital Roadway Interactive Visualization and Evaluation Network: DRIVE Net." Presented by **Yao-Jan Wu** at the ITE Washington 2010 Annual Meeting. Bellevue, Washington, June 2010.
32. Liu^{*}, Xiaoyue, Guohui Zhang^{*}, and Yin Hai Wang. "Quantifying Dynamic Tolling Impacts on Single Occupancy Vehicles' Usage of High Occupancy Toll Lanes: an Empirical Approach Based on Field Observations." Presented by **Xiaoyue Liu** at Innovations in Pricing of Transportation Systems: Workshop and Conference, Lake Buena Vista, Florida, May 13, 2010.
33. Wang, Yin Hai, Guohui Zhang^{*}, and Xiaoyue Liu^{*}. "Design and Operation Factors Affecting HOT Lane Performance." Presented by **Yin Hai Wang** at the 89th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2010.
34. Cheevarunothai^{*}, Patikhom, Guohui Zhang, and Yin Hai Wang. "Quantifying Freeway Incident-Induced Delays Using Loop Detector Measurements." Presented by **Guohui Zhang** at the 89th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2010.
35. Wu^{*}, Yao-Jan, Mark Hallenbeck, and Yin Hai Wang. "Impacts of Freeway Traffic Congestion on En-route Traveler's Diversion." Presented by **Yao-Jan Wu** at the 89th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2010.
36. Malinovskiy^{*}, Yegor, Yao-Jan Wu^{*}, Yin Hai Wang, and Un-Kun Lee. "Field Experiments on Bluetooth-based Travel Time Data Collection." Presented by **Yegor Malinovskiy** at the 89th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2010.
37. Liu^{*}, Xiaoyue, Guohui Zhang^{*}, Yao-Jan Wu^{*}, and Yin Hai Wang. "Analyzing System Performance for Washington State Route 167 High Occupancy Toll (HOT) Operations." Presented by **Xiaoyue Liu** at the 89th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2010.
38. Zhang^{*}, Guohui, Yao-Jan Wu^{*}, Xiaoyue Liu^{*}, and Yin Hai Wang. "Impacts of High Occupancy Toll (HOT) Lane Operations on High Occupancy Vehicle (HOV) Travelers."

- Presented by **Guohui Zhang** at the 89th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2010.
39. Miller, Greg, Genevieve Farrar, Yin Hai Wang, and Peter Mackenzie. "Low-Cost Vehicle Detection Based on Simple Light Sensing." Presented by **Greg Miller** at the 89th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2010.
 40. Wu^{*}, Yao-Jan, Guohui Zhang^{*}, and Yin Hai Wang. "Volume Data Correction for Single-channel Advance Loop Detectors at Signalized Intersections." Presented by **Yao-Jan Wu** at the 89th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2010.
 41. Fujisawav^{*}, Kaori, Yin Hai Wang, Brian Kemper, and Vinh Dang. "Integrated Corridor Management in Seattle, WA." Presented by **Kaori Fujisawa and Yin Hai Wang** at the Integrated Corridor Management Modeling Best Practices Workshop. Irvine, California. Sept. 14, 2009.
 42. Cheevarunothai^{*}, Patikhom and Yin Hai Wang. "Identification and Correction of Inductance Loop Sensitivity Problems." Presented by **Yin Hai Wang** at the 2009 International Conference of Chinese Transportation Professionals, Harbin, China, August 2009.
 43. Wang, Yin Hai. "Traffic Accident Modeling: from Black-Box Regression to Occurrence Mechanism-based Approach." Presented by **Yin Hai Wang** at the 2009 International Conference of Chinese Transportation Professionals, Harbin, China, August 2009.
 44. Malinovskiy^{*}, Yegor, Yao-Jan Wu^{*}, Yin Hai Wang, Matthew Neeley, and Ted Bailey. "Automatic Traffic Data Collection Using Surveillance Video Cameras." Presented by **Yin Hai Wang and Yegor Malinovskiy** at the 2009 Western States Rural Transportation Technology Implementers Forum, Mount Shasta, California, June 2009.
 45. Zhang^{*}, Guohui and Yin Hai Wang. "A Self-Adaptive Dynamic Tolling Algorithm (SADTRA) for High Occupancy Toll Lane Operations." Presented by **Yin Hai Wang** at the 2nd International Symposium on Freeway and Tollway Operations, Honolulu, Hawaii, June 22-24, 2009.
 46. Cheevarunothai^{*}, Patikhom and Yin Hai Wang. "Quantifying Incident-Induced Travel Delays on Freeways Using Traffic Sensor Data." Presented by **Yin Hai Wang** at the 2nd International Symposium on Freeway and Tollway Operations, Honolulu, Hawaii, June 22-24, 2009.
 47. Wu^{*}, Yao-Jan, Jonathan Corey, and Yin Hai Wang. "Digital Roadway Interactive Visualization and Evaluation Network (DRIVE Net)." Presented by **Yao-Jan Wu** at the ITE Washington 2009 Annual Meeting. Tulalip, Washington, June 2009.
 48. Malinovskiy^{*}, Yegor, Yao-Jan Wu^{*}, and Yin Hai Wang. "Environment Insensitive Vehicle Detection using Surveillance Cameras." Presented by **Yegor Malinovskiy** at the ITE Washington 2009 Annual Meeting. Tulalip, Washington, June 2009.
 49. Cheevarunothai^{*}, Patikhom and Yin Hai Wang. "A Practical Algorithm for Identifying and Correcting Single-Loop Sensitivity Problems." Presented by **Patikhom Cheevarunothai** at the 88th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2009.
 50. Perrine^{*}, Kenneth, Yunteng Lao^{*}, and Yin Hai Wang. "An Area-Wide System for Coordinated Ramp Meter Control." Presented by **Kenneth Perrine** at the 88th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2009.
 51. Malinovskiy^{*}, Yegor, Yao-Jan Wu^{*}, and Yin Hai Wang. "Video-Based Vehicle Detection and Tracking Using Spatio-Temporal Maps." Presented by **Yegor Malinovskiy** at the 88th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2009.
 52. Hwang, Hee-Jung, Un-Kun Lee, Kwang-Ryul Baek, Yao-Jan Wu^{*}, and Yin Hai Wang. "Stereo Image Processing Algorithm for Preceding Vehicle Detection Using Lane-Related Information." Presented by **Un-Kun Lee** at the 88th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2009.

53. Malinovskiy*, Yegor and Yin Hai Wang. "Computer-Vision Algorithm for Automated Data Collection on Shared Pathways." Presented by **Yegor Malinovskiy** at the 88th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2009.
54. Yu*, Runze, Guohui Zhang* and Yin Hai Wang. "Loop Detector Segmentation Error and Its Impacts on Traffic Speed Estimation." Presented by **Runze Yu** at the 88th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2009.
55. Zheng*, Jianyang, Xiaolei Ma*, Yin Hai Wang, and Yi Ping. "Measuring Signalized Intersection Performances in Real-Time with Traffic Sensors." Presented by **Jianyang Zheng** at the 88th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2009.
56. Wu*, Yao-Jan, Mark Hallenbeck, and Yin Hai Wang. "Evaluation of Interaction between Arterial and Freeway Performance: Case Study." Presented by **Yao-Jan Wu** at the 88th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2009.
57. Lao*, Yunteng, Yao-Jan Wu, Yin Hai Wang, and Xiaoguang Yang. "Applicability of signalized single and double phase midblock crossings in highly populated areas." Presented by **Yunteng Lao** at the 88th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2009.
58. Zhang*, Guohui and Yin Hai Wang. "Determining Toll Rate Dynamically Based on Real-Time Sensor Measurements." Presented by **Yin Hai Wang** at the 2008 Freeway and Tollway Operations Conference, Fort Lauderdale, Florida, June 2008.
59. Zhang, Guohui, Yin Hai Wang, Heng Wei, and Ping Yi. "A Feedback-Based Dynamic Tolling Algorithm for High Occupancy Toll (HOT) Lane Operations." Presented by **Guohui Zhang** at the 87th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2008.
60. Malinovskiy*, Yegor, Yao-Jan Wu, and Yin Hai Wang. "Video-Based Monitoring of Pedestrian Movements at Signalized Intersections." Presented by **Yegor Malinovskiy** at the 87th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2008.
61. Wu*, Yao-Jan and Yin Hai Wang. "Google-Map-Based Online Platform for Arterial Traffic Information and Analysis." Presented by **Yao-Jan Wu** at the 87th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2008.
62. Levy*, Björn Atli., Yao-Jan Wu*, and Yin Hai Wang. "Accident Risk Modeling for Two-Lane Rural Roads in Washington State." Presented by **Yao-Jan Wu** at the 87th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2008.
63. Zheng*, Jianyang, Guohui Zhang*, Yin Hai Wang, and Pete Briglia. "Comprehensive Evaluation on Transit Signal Priority System Impacts Using Field Observed and Simulated Traffic Data." Presented by **Jianyang Zheng** at the 87th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2008.
64. Zhang*, Guohui, Shuming Yan*, and Yin Hai Wang. "Simulation-based Investigation on High Occupancy Toll (HOT) Lane Operations for Washington State Route 167." Presented by **Guohui Zhang** at the 87th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2008.
65. Yi, Ping, Chun Shao, and Yin Hai Wang. "Piecewise Optimum Delay Estimation for Improved Signal Control." Presented by **Chun Shao** at the 87th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2008.
66. Xu, Tianze, Heng Wei, Yin Hai Wang, and Anastasios M. Ioannides. "Modeling Capacity Reliability of Minor Roads at At-Grade Un-Signalized Intersections for Potential Operational Performance Evaluation." Presented by Heng Wei at the 87th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2008.

67. Qian, Dalin, Yin Hai Wang, Xiaohong Du, and Sansan Li. "Modeling the Micro-behavior Producing Interference between Bicycles and Vehicles at Intersections." Presented by **Dalin Qian** at the 14th World Congress on Intelligent Transportation Systems. Oct. 2007.
68. Wu^{*}, Yao-Jan, Yin Hai Wang, and Dalin Qian. "A Database-Driven Google-Based Traffic Flow Map for Urban Streets." Presented by **Yao-Jan Wu** at the 10th International IEEE Conference on Intelligent Transportation Systems. Oct. 2007.
69. Cheevarunothai^{*}, Patikhom, James Marlon Mooney^{*}, and Yin Hai Wang. "Statistical and Queuing Analyses of Freeway Incidents in Washington State." Presented by **Patikhom Cheevarunothai** at the 10th International IEEE Conference on Intelligent Transportation Systems. Oct. 2007.
70. Zhang^{*}, Guohui, Ryan P. Avery^{*}, and Yin Hai Wang. "A Video-based Vehicle Detection and Classification System for Real-time Traffic Data Collection Using Uncalibrated Video Cameras." Presented by **Guohui Zhang** at the 86th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2007.
71. Zhang^{*}, Guohui, Yin Hai Wang, and Heng Wei. "Examining Headway Distribution Models Using Urban Freeway Loop Event Data." Presented by **Guohui Zhang** at the 86th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2007.
72. Malinovskiy^{*}, Y., Jianyang Zheng^{*}, and Yin Hai Wang. "A Simple and Model-Free Algorithm for Real-Time Pedestrian Detection and Tracking." Presented by **Yegor Malinovskiy** at the 86th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2007.
73. Avery^{*}, Ryan P., Guohui Zhang^{*}, Yin Hai Wang, and Nancy L. Nihan. "An Investigation into Shadow Removal from Traffic Images." Presented by **Guohui Zhang** at the 86th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2007.
74. Zheng^{*}, Jianyang, Yin Hai Wang, Hongchao Liu, and Mark Hallenbeck. "Modeling the Impact of Near-Side Bus Stop on Transit Delays at Transit Signal Priority Enabled Intersections." Presented by **Guohui Zhang** at the 86th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2007.
75. Cheevarunothai^{*}, Patikhom, Yin Hai Wang, and Nancy Nihan. "Using Dual-Loop Event Data to Enhance the Accuracy of Truck Data." Presented by **Patikhom Cheevarunothai** at the 86th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2007.
76. Zhang^{*}, Guohui, Yin Hai Wang, and Heng Wei. "An Artificial Neural Network Algorithm for Length-Based Vehicle Classification Using Single-Loop Data." Presented by **Guohui Zhang** at the 85th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2006.
77. Zheng, Jianyang, Yin Hai Wang, Nancy L. Nihan, and Mark Hallenbeck. "Extracting Roadway Background Image: a Mode-Based Approach." Presented by **Jianyang Zhang** at the 85th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2006.
78. Kim^{*}, Joon-Ki, Yin Hai Wang, and Gudmundur F. Ulfarsson. "A Numerical Examination of Freeway Rear-End Accidents Considering the Mechanism of Accident Occurrence." Presented by **Joon-Ki Kim** at the 85th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2006.
79. Cheevarunothai^{*}, Patikhom, Yin Hai Wang, and Nancy L. Nihan. "Identification and Correction of Dual-Loop Sensitivity Problems." Presented by **Patikhom Cheevarunothai** at the 85th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2006.
80. Zhang, Xiaoping, Nancy L. Nihan, and Yin Hai Wang. "A Robust Algorithm for Improved Dual-Loop Detection on Freeways." Presented by **Xiaoping Zhang** at the 85th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2006.
81. Cheevarunothai^{*}, Patikhom, Yin Hai Wang, and Nancy L. Nihan. "Development of Advanced Loop Event Data Analyzer (ALEDA) for Investigations of Dual-Loop Detector

- Malfunctions.” Presented by **Patikhom Cheevarunothai** at the 13th World Congress of Intelligent Transportation Systems, California, Nov. 2005.
82. Zheng^{*}, Jianyang, Yin Hai Wang, and Nancy L. Nihan. “Quantitative Evaluation of GPS Performance under Forest Canopies.” Presented by **Jianyang Zheng** at the 2005 IEEE International Conference on Networking, Sensing, and Control, Arizona, Mar. 2005.
 83. Avery, Ryan P., Yin Hai Wang, and Nancy L. Nihan. “A Region Growing Algorithm for Estimating Freeway Traffic Speed from Single Loops.” Presented by **Ryan Avery** at the 84th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2005.
 84. Wei, Heng, Yin Hai Wang, Abi Mogharabi, and Qingyuan (Ken) Yang. “Merging Roadside Signed Route Guidance Systems with ATIS/ATMS in A Mixed Roadway Network.” Presented by **Heng Wei** at the 84th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2005.
 85. Zhang, Xiaoping, Nancy L. Nihan, and Yin Hai Wang. “Improved System for Collecting Real-Time Truck Data from Dual-Loop Detectors.” Presented by **Xiaoping Zhang** at the 84th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2005.
 86. Zheng, Jianyang, Yin Hai Wang, Nancy L. Nihan, and Mark Hallenbeck. “Detecting Cycle Failures at Signalized Intersections Using Video Image Processing.” Presented by **Jianyang Zheng** at the 84th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2005.
 87. Cheevarunothai^{*}, Patikhom, Yin Hai Wang, and Nancy L. Nihan. “Development of an Affordable Loop Detector Simulator (LOOPSIM) for In-Laboratory Traffic Research and Training.” Presented by **Patikhom Cheevarunothai** at the 84th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2005.
 88. Tao, Ruihua, Heng Wei, Yin Hai Wang, and Virginia P. Sisiopiku. “Modeling Speed Disturbance Absorption Following State-Control Action-Expected Chains: Integrated Car-Following and Lane-Changing Scenarios.” Presented by **Heng Wei** at the 84th Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2005.
 89. Avery^{*}, Ryan P., Yin Hai Wang, and Scott G. Rutherford. “Length-Based Vehicle Classification Using Images from Uncalibrated Video Cameras.” Presented by **Ryan Avery** at the 7th IEEE International Conference on Intelligent Transportation Systems (ITSC2004), Washington, D.C., July 2004.
 90. Yin Hai Wang and Nancy Nihan. “An Adaptive Algorithm for Freeway Speed Estimation with Single-Loop Measurements.” Presented by **Yin Hai Wang** at the 2004 Conference of Systemics, Cybernetics, and Informatics, Orlando, FL, July 2004.
 91. Avery^{*}, Ryan P., Chris P. Thomas, Yin Hai Wang, and G. Scott Rutherford. “Development of a Length-Based Vehicle Classification System Using Uncalibrated Video Cameras.” Presented by **Ryan P. Avery** at the 83rd Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2004.
 92. Zhang^{*}, Xiaoping, Yin Hai Wang, and Nancy L. Nihan. “Monitoring a Freeway Network in Real-Time Using Single-Loop Detectors: System Design and Implementation.” Presented by **Xiaoping Zhang** at the 83rd Annual Meeting of Transportation Research Board. Jan. 2004.
 93. Wang, Yin Hai and Nancy Nihan. “Can Single-Loop Detectors Do the Work of Dual-Loop Detectors?” Presented by Yin Hai Wang at the 82nd Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2003.
 94. Zhang, Xiaoping, Yin Hai Wang, Nancy L. Nihan, and Mark Hallenbeck. “Development of A System to Collect Loop Detector Event (Individual Vehicle) Data.” Presented by **Xiaoping Zhang** at the 82nd Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2003.

95. Wang, Yin Hai and Nancy Nihan. "Estimating the Risk of Collisions between Bicycles and Automobiles at Signalized Intersections." Presented by **Yin Hai Wang** at the 81st Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2002.
96. Wang, Yin Hai and Nancy Nihan. "A Robust Method of Filtering Single-Loop Data for Improved Speed Estimation." Presented by **Yin Hai Wang** at the 81st Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2002.
97. Wang, Yin Hai and Nancy Nihan. "Quantitative analysis on angle-accident risk at signalized intersections." Presented by **Yin Hai Wang** at the 9th World Conference on Transport Research, Korea, July 2001.
98. Wang, Yin Hai and Nancy Nihan. "Dynamic Estimation of Freeway Speed with Single-Loop Measurements." Presented by **Yin Hai Wang** at the 11th Annual Meeting of ITS America, Florida, June 2001.
99. Wang, Yin Hai and Nancy Nihan. "Dynamic Estimation of Freeway Large Truck Volume Based on Single Loop Measurements." Presented by **Yin Hai Wang** at the 80th Annual Conference of Transportation Research Board, Washington, D.C., Jan. 2001.
100. Wang, Yin Hai and Nancy Nihan. "Freeway Traffic Speed Estimation Using Single Loop Measurements." Presented by **Yin Hai Wang** at the 79th Annual Conference of Transportation Research Board, Washington, D.C., Jan. 2000.
101. Wang, Yin Hai and Hitoshi Ieda. "Using Accident Observations to Evaluate Rear End Accident Risk at Four-Legged Signalized Intersections." Presented by **Yin Hai Wang** at the 8th World Conference of Transportation Research, Belgium, July 1998.
102. Saito, Koji, Yin Hai Wang, Kiyoshi Takahashi, and Hitoshi Ieda. "A Study on Intersection Angle Accident Risk with Drivers' PRT Considered." Presented by **Koji Saito** at the 53rd Annual Conference of the Japan Society of Civil Engineers. Japan. Sept. 1998.
103. Yin Hai Wang and Hitoshi Ieda. "Effects of Drivers' Age, Flow Rate and Some Other Road Environment Related Factors on Traffic Accidents at Four-Legged Signalized Intersections." Presented by **Yin Hai Wang** at the 2nd Conference of Eastern Asia Society for Transportation Studies, Korea, May 1998.
104. Wang, Yin Hai, Kiyoshi Takahashi, and Hironori Kato. "Elderly Drivers' Features and Their Effects on Accident Risk." Presented by **Yin Hai Wang** at the 23rd Annual Conference of the East Japan Society of Civil Engineers, Japan, March 1997.
105. Wang, Yin Hai and Hitoshi Ieda. "Traffic Safety Under Mixed Traffic Condition in Beijing." Presented by **Yin Hai Wang** at the 51st Annual Conference of the Japan Society of Civil Engineers, Japan, Sept. 1996.
106. Wang, Yin Hai, Qixin Shi, and Rongpeng Xia. "A Cost Comparison between the Prefabricated Reinforced Concrete BOX Structure and the Masonry structure." Presented by **Yin Hai Wang** at the 1st International Conference on Open Building and Structure Engineering, China, Nov. 1995.
107. Wu, Xiangdong, Qixin Shi, and Yin Hai Wang. "A Dynamic Analysis on Pre-stressed Concrete Bridges with Continuous Curvaceous Beams under Earthquake Loads." Presented by **Qixin Shi** at the 3rd conference of transportation engineering in China (in Chinese), China, Aug. 1994.

Professional society memberships.

Institute of Transportation Engineers (ITE) (2004 – present)
American Society of Civil Engineers (ASCE) (2004 – present)
Institute of Electrical and Electronics Engineers (IEEE) (2004 – present)

Transportation Research Board (TRB) (1999 - present)
World Conference on Transport Research (1995 - present)
Chinese Overseas Transportation Association (COTA) (2000 – present)
Institute for Operations Research and the Management Sciences (INFORMS) (2007 – 2009)
Japan Society of Civil Engineers (1995 - 1998)
China Civil Engineering Society (1989 - 1995)

Other

Reviews Made:

Journal, Proceedings, and Proposals	Number
Journal of Transportation Engineering	10
Accident Analysis and Prevention	2
Journal of Computing in Civil Engineering	70
Transportation Research: Part A	2
Transportation Research: Part B	2
Transportation Research: Part C	12
Transportation Research Record	131
Journal of Advanced Transportation	5
Journal of Infrastructure Systems	2
Journal of Intelligent Transportation Systems	5
Computer-Aided Civil and Infrastructure Engineering	18
Computer Applications in Engineering Education	2
ITS Journal	3
IATSS Research	2
Journal of Engineering Research	1
World Transport Research	1
ITS America Annual Meeting	2
IEEE's Intelligent Transportation Systems Conference	13
IEEE Transactions on Vehicular Technology	1
IEEE Transactions on Intelligent Transportation Systems	5
International Symposium on Transportation and Traffic Theories (ISTTT)	1
World Congress on ITS	3
Research Proposal for PATH, Univ. of California at Berkeley	7
Research Proposal for Rhode Island University Transportation Center	2
Research Proposal for New England University Transportation Center	5
Research Proposal for Southeast University Transportation Center	1
Research Proposal/Report for TransNow	13
Research Proposal for METRANS Transportation Center	1
Research Proposal for Center for Multimodal Solutions for Congestion Mitigation (CMS) at University of Florida	5
Research Proposal for the UVM Transportation Center	1
Research Proposal for Ohio Transportation Consortium	3
Research Proposal for Oregon Transportation Research and Education Consortium	7
The First International Conference on Transportation Logistics (Singapore)	2
NSF Proposal	30
China NSF Proposal	1

Referee for University Tenure/Promotion Evaluation Package: 2

GRADUATE STUDENTS

Chaired Doctoral Degrees

Student Name	Dissertation Title	Completed (Year)	Current Employer
Jonathan Corey	TBD	In progress	---
Xiaolei Ma	IC Card Data based Transit Performance Analysis	In progress	---
Runze Yu	Modeling Transportation Impacts on Air Quality	In progress	---
Xiaoyue Liu	Analysis of Managed Lanes on Freeway Facilities	In progress	---
Yegor Malinovski	Non-Motorized Transportation System Analysis and Monitoring	In progress	---
Kaori Fujisawa	Transit Diverting Strategies Under Integrated Corridor Management	In progress	Seattle DOT
Yunteng Lao	Animal-Vehicle Collision Modeling and Analysis	In Progress	---
Yao-Jan Wu	Traffic Sensor Data-Based Arterial Performance Measurement: Methodology and Online Implementation	2010	Univ. of St. Louis
Guohui Zhang	ITS Sensor Data-Based Control Methods for Optimal Traffic System Operations	2008	Univ. of New Mexico
Patikhom Cheevarunothai	Quality Control on ITS Sensor Data	2008	Thammasat Univ., Thailand
Jianyang Zheng*	Performance Measurements for Signalized Intersections with Video Image Processing	2008	Maryland State HA
Ryan P. Avery	Video Image Processing for Improved Freeway Traffic Operation Data	2007	PB

* co-chaired with Dr. Nancy L. Nihan.

Chaired Masters Degrees

Student Name	Level of Supervision ("thesis," "project" or "coursework")	Thesis/Paper Title (if applicable)	Completed (Year)	Current Employer
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	only")			
Xin Xin	Thesis	TBD	In progress	---
Tim Thomson	Thesis	The Operational Performance and Speed-Flow Relationships for Basic Segments of Managed Lane Facilities	Mar. 2011	Fehr & Peers
Basma Mukari	Non-Thesis	I-90 Variable Speed Limit Compliance	June 2009	WSDOT
Todd Merkens	Non-Thesis	Impact of HOT lane access points on traffic collisions	June 2009	WSDOT
Xiaolei Ma ¹	Thesis	Developing a GPS-based On-line Freight Performance Measures Platform	2010	UW
Jonathan Corey	Thesis	Detection and Correction of Loop Detector Sensitivity Level Errors	2010	UW
Runze Yu	Thesis	Air Quality Impacts from Heavy Vehicles	June 2009	UW
Yegor Malinovskiy	Thesis	Occlusion Robust Video-based Vehicle Detection	March 2009	UW
J. Marlon Mooney	Thesis	To be determined	In progress	IBI Group
Gudmundur Bodvarsson ²	Thesis	Effects of loop detector installation on Portland Cement Concrete Pavement lifespan: Case study on I-5	Dec. 2008	Iceland
Ken Perrine	Thesis	Area-Wide Coordinated Ramp Meter Control	Dec. 2008	SDOT
Gretar Aevarsson	Thesis	Two-sided Freeway Weaving Capacity Analysis on Ship Canal Bridge	Nov. 2007	Mannvit Engineering
Ngan Ha Nguyen	Thesis	Quantitative safety analysis for intersections on Washington State two-lane rural highways Traffic Accidents	Aug. 2007	WSDOT
Euneka Robinson-McCutchen	Non-Thesis	Optimizing the Use of Ramp Meters and Fuzzy Logic Using VISSIM	June 2007	WSDOT
Kevin Mizuta	Non-Thesis	Automated License Plate Readers Applied to Real-Time Arterial Performance: A Feasibility Study	June 2007	WSDOT
Charles Grove	Non-Thesis	Travel Time Data Collection Influences on LOS Determination	June 2007	HNTB
Peter Chen	Non-Thesis	Variance in Intersection Turning Movement Counts	March 2007	Parametrix

		and the Need for Automated Collection		
Atli Levy	Thesis	Cost-Effective Safety Improvements for Two-Lane Rural Roads in Washington State	March 2007	Verkfraedistofa Sigurdar Thoroddsen (VST)
Tony Woody	Non-Thesis	Calibrating Freeway Simulation Models in VISSIM	June 2006	CH2MHILL
Joshua Johnson	Non-Thesis	The Effect of Speed Differentials on Incidents between HOV and General Purpose Lanes	June 2006	Parametrix
Zahid Khan	Non-Thesis	Evaluation of the Effectiveness of the Speed Awareness Monitor	June 2005	Woodinville DOT
Joonki Kim	Thesis	A Numerical Examination of Freeway Rear-End Accidents Considering the Mechanism of Accident Occurrence	Dec. 2004	Korea Research Inst. for Human Settlements
James L. Slavicek	Non-Thesis	Tolling Options for the New SR-520 Bridge: Electronic vs. Manual Toll Collection	June 2004	WSDOT

1: co-chaired with Dr. Ed McCormack

2 : co-chaired with Dr. Steve Muench

Other significant student supervision

Ph.D. Committees:

Student	Dissertation Title	Year of Completion
Kari Watkins	Travel Time Reliability in Public Transportation	In progress
Ibrahim Karliga	A Framework for Human Body Video Object Segmentation and Body Parts Tracking	2011
Fei Ye	System Optimization and Protocol Design for Vehicular Networks	2011
Chun-Te Chu	Video Object Tracking	In progress
Ronald Merryman	Mobile Handheld and Wearable Computing – Expanding the Effective Spatial Information Portal through Bimanual Interaction	In progress
Karim Aldin Ismail	Application of Computer Vision Techniques for Automated Roadway Safety Analysis and Traffic Data Collection	2010
Hui Ma	Wireless Mesh Network Performance Using Physical Carrier Sensing	2008
Radhakrishna Sampigethaya	Wireless Network Application in Traffic Monitoring	2007
Jianhua Li	Optimization of Pavement Deterioration Models	2006
Guangtao Zhang	Design, Synthesis, and Evaluation of Cholera Toxin Inhibitors and α -Helix Minetics of Dormancy Survival Regulator	2006
Adam Glynn	Combining Individual and Ecological Data in Linear Multilevel	2006

	Models	
Karl Westby	Systems Analysis of Freight Transportation Networks	2004

Master's Degree Committees:

Student	Thesis/Paper Title	Year of Completion
Steven Drew Cooper	A Simulation Study of Variable Speed Limits and Incident Induced Congestion	2010
Chia-So Chuang	Preliminary Investigation of Roadside Sensors for Weigh-In-Motion Applications	2008
Christopher D. Masek	An evaluation and analysis of left turn restrictions within downtown Bellevue using Synchro and VISSIM	2008
Dustin R Rasmussen	Traffic Simulation Analysis	2008
Kristina Evanoff	Using Commute Trip Reduction Survey Data to Identify Potential Transit Markets*	2006
Eric Forsyth	Central Link Light Rail's Effect on the Construction of the Alaskan Way Viaduct and Seawall Replacement Project*	2006
Ryan Avery	A Region Grow Algorithm for Estimating Freeway Traffic Speed from Single-Loop Traffic Detectors*	2005
Thomas Tumola	A Scalable Architecture for Arterial Performance Measures Using Max Out, Gap Out and Force Off Signal Event Data*	2005
Owen Kehoe	Effects of Bus Stop Consolidation on Transit Speed and Reliability: A Test Case	2004
Jianhua Li	Application of HDM-4 in Washington State Highway System	2004
Taryn Kristof	ATIS Evaluation	2004
Brian Harr	The Woodinville Subdivision and the I-405 Corridor*	2004
Amy Elliott	196 th Avenue NE: the Red Brick Road on the Yellowstone Trail*	2004
Johanna Weinstock	Connection Protection: Improvement or Hindrance to King County Metro's Operations? *	2004
Roger Baugh	Sound Transit: A Performance Review*	2004
Theodore Bailey	Signal Optimization Technologies and Strategies*	2004
Jianyang Zheng	Performance Evaluation of the GPS/INS Integrated System in Forest Environment and Urban Area	2002
Naveen Juvva	Statistical Analysis of Washington State Urban Freeway Accident Type Probabilities	2002

* Research paper title.

Undergraduate Research Supervision:

Student	Research Project Title	Year of Completion
Zhuohong Shen	Mobile-Device Based Pedestrian Data Collection	2011
Jonathan Corey	Comparing VVDC System with Citilog RoadMedia	2008
Ngan Ha Nguyen	Traffic Accident Modeling Approach Survey	2007
Yegor Malinovskiy	Video-based Pedestrian Detection (received Mary Gates Fellowship)	2007

RESEARCH ACTIVITIES

Funded Research

1. Co-PI with Roger Mingo (PI). Development of Methods for Enhancing Travel Origin Destination Data, \$159,438 (My portion), June 2011 – Nov. 2012. Federal Highway Administration.
2. Co-PI with Mark Hallenbeck (PI). Clean-up of Existing Data Sets to Support Dynamic Mobility Applications Development, \$100,000 (my portion), July 2011 – December 2011, Federal Highway Administration.
3. PI. Occlusion Robust and Environment Insensitive Algorithm for Vehicle Detection and Tracking Using Surveillance Video Cameras, \$7,500, TransNow Commercialization Grant, June 2011 – June 2012.
4. PI. Development of a Statewide Online System for Traffic Data Quality Control and Sharing, \$7,500, TransNow Commercialization Grant, June 2011 – June 2012.
5. PI. Error Modeling and Analysis for Travel Time Data Obtained from Bluetooth MAC Address Matching, \$7,500, TransNow Commercialization Grant, June 2011 – June 2012.
6. PI. Co-PI with Mark Hallenbeck. Migration of Operations Datamart to DRIVE Net, \$200,000, Washington State Department of Transportation, July 2011 – June 2013.
7. PI. Beijing Transit Data Mining for Passenger OD Extraction, RMB ¥250,000 (or \$37,879), Beijing Transportation Research Center, Sept. 2010 – July 2012.
8. PI. Developing a Performance Measurement Framework and Selection Guidelines for Advanced Traffic Signal Systems, \$96,000, TransNow, Sept. 2011 – June 2013.
9. PI. Co-PI with Shi An at Harbin Institute of Technology, Urban Expressway Incident Management Strategies Based on Traffic Sensor Measurements, RMB ¥200,000 (or \$29,850. All for my research), China National Science Foundation's Oversea Collaborative Research Program, Sept. 2010 – Aug. 2012.
10. PI with Bill Howe, Dan Suci, Tim Larson, and Catherine Karr (co-PIs). INTEROP: Developing an Interoperable Digital Roadway Interactive Visualization and Evaluation Network (DRIVE Net) for Traffic, Air 39. Pollution, and Public Health Data Sharing/Studies, April 2010 – March 2015, \$1,250,000 (\$700,000 for my research), National Science Foundation. *Strongly recommended for funding by the panel but was not funded.*
11. PI. Criteria for the Selection and Application of Advanced Traffic Signal Systems, \$178,000, Oregon State Department of Transportation, Sept. 2010 – Dec. 2011.
12. Co-PI with Mark Hallenbeck (PI). SR-167 HOT Lanes: Usage and Compliance Metrics, \$30,566 (\$26,038 for my research), Washington State Department of Transportation, Sept. 2010 – March 2011.
13. Co-PI with Scott Rutherford (PI). Perceived and Actual Wait Time Measurement at Transit Stops Using Bluetooth, \$43,402 (about \$21,701 for my research), TransNow, July 2010 – June 2011.
14. PI. Simulation-Based Testbed Development for Analyzing Toll Impacts on Freeway Travel, \$74,500, TransNow, July 2010 – June 2011.
15. PI. Arterial Signal Optimization Based on Integrated Corridor Management (ICM) Implementation, \$750,000, Seattle Department of Transportation, Oct. 2009 – Sept. 2012.
16. PI. Identifying High Risk Locations of Animal-Vehicle Collisions for Future Road Ecology, \$64,869, TransNow, July 2009 – June 2010.

17. PI. Error Modeling and Analysis for Travel Time Data Obtained from Bluetooth MAC Address Matching, \$81,200, TransNow, July 2009 – June 2010.
18. PI. Error Modeling and Analysis for Travel Time Data Obtained from Bluetooth MAC Address Matching, Washington State Department of Transportation, \$132,000, Apr. 1, 2009 – December 31, 2011.
19. PI with Nagui Roupail (co-PI). Analysis of Managed Lanes on Freeway Facilities, Cooperative Highway Research Program (NCHRP), \$350,000 (\$200,000 for my research), Apr. 1, 2009 – October 2, 2011.
20. PI. Quantifying Incident-Induced Travel Delays on Freeways (Phase II), WSDOT, \$75,000, July 2008 – June 2010.
21. PI. Real-Time Travel Time Prediction on Urban Traffic Network, TransNow, \$123,208, July 2008 – June 2010.
22. PI. A Microscopic Approach for Quantifying Recurrent and Non-Recurrent Delays on Freeways, TransNow, \$101,053, July 2008 – June 2010
23. Co-PI with Greg Miller (PI) and Peter Mackenzie, Low-Cost, Distributed-Sensor-Based Weigh-In-Motion Systems, TransNow, \$38,737 (Advisory role to the graduate student worked on this project), July 2008 – June 2009.
24. PI. Quantitative Analysis of Vehicle-Animal Collisions, Washington State Department of Transportation, \$75,000, Feb. 2008 – Dec. 2009.
25. PI. Side-by-side Evaluation of VVDC and Citilog's Media TD Video Detection Systems, Washington State Department of Transportation, \$5,000, May 2007 – June 2007.
26. Co-PI with Michael Yost (PI), Timothy Larson, and Chris Simpson. Evaluation of Methods for Air Toxics Source Apportionment Using Real-Time Continuous Monitoring Instruments, the U.S. Environmental Protection Agency, \$449,841 (\$100,000 for my research), Apr. 2008 – Nov. 2009.
27. PI with Mark Hallenbeck (co-PI). Development of a Statewide Traffic Data System, TransNow, \$120,000 (\$100,000 for my research), July 2007 – June 2009.
28. PI. A Self-Adaptive Toll Rate Algorithm for High Occupancy Toll (HOT) Lane Operations, TransNow, \$71,000, July 2007 – June 2009.
29. Co-PI with Mark Hallenbeck (PI). Development of a Consistent and Reliable Statewide Traffic Datamart Based on Customers Needs and Expectations, WSDOT, \$200,000 (\$20,000 for my research), July 2007 – June 2008.
30. Co-PI with Sverre Vedal (PI), Joel Kaufmann, Tim Larson, Sally Liu, and Thomas Lumley. Integrated Epidemiologic and Toxicologic Cardiovascular Studies to Identify Toxic Components and Sources of Fine Particulate Matter, Health Effects Institute (HEI), \$3,851,000 (\$40,000 for my research), Sept. 2006 – Aug. 2010.
31. Principle Investigator (PI). Occlusion Robust Vehicle Tracking Using Motion-based Features, TransNow, \$108,000, July 2006 – June 2008.
32. Co-PI with Mark Hallenbeck (PI). Measuring Arterial Performance Using Vehicle Fleet GPS Data and Traffic Sensor Data, TransNow, \$25,000 (\$10,000 for my research), July 2006 – June 2007.
33. Co-PI (with Mark Hallenbeck (PI). Traffic Simulation Lab, Washington State Department of Transportation and TransNow, \$155,000 (\$60,000 for my research), July 2006 – June 2007.
34. PI. Developing an Area-Wide System for Coordinated Ramp Meter Control, TransNow, \$90,000, July 2006 – June 2008.

35. Co-PI with Mark Hallenbeck (PI) and G. Scott Rutherford. Puget Sound In-Vehicle Traffic Map Demonstration, the United State Department of Transportation, \$1,150,000 (\$200,000 for my research), Apr. 2006 – Sept. 2009.
36. PI. A System Optimization Approach for Traffic Signal Timing at Full-Actuated Intersections. Royalty Research Funds. \$22,140, Sept. 2006 – Aug. 2007.
37. PI. LOOP SIMulator (LOOPSIM) for Vehicle Traffic Control, Washington Research Foundation, \$10,000 (gift money), Dec. 2005 – Jan. 2007.
38. PI. Cost Effective Safety Improvements for Two-Lane Rural Roads, TransNow, \$45,000, Sept. 2005 – Aug. 2007.
39. PI with Mark Hallenbeck (co-PI). Estimation of Incident-Induced Travel Delays on Freeways, Washington State Department of Transportation, \$75,000 (\$60,000 for my research), Feb. 2006 – Jan. 2008.
40. PI with Mark Hallenbeck (co-PI). Estimation of Incident-Induced Travel Delays on Freeways, TransNow, \$90,000 (\$75,000 for my research), Sept. 2005 – Aug. 2007.
41. PI, Comprehensive Evaluation of Transit Signal Priority system Impacts Using Field Observed Traffic Data, TransNow, \$65,000, Sept. 1, 2004 – Aug. 31, 2006.
42. Co-PI with Joel Kaufman (PI), David Siscovick, Ana Diez Roux, Richard Kronmal, Mohammed Saad, Robert Detrano, Graham Barr, Patrick Kinney, Steven Shea, Brad Astor, Greg Burke, Eyal Shahar, Aaron Folsom, David Jacobs, Myron Gross, Martha Daviglius, Kiang Liu, Danial O’Leary, Lianne Sheppard, Paul Sampson, Thomas Lumley, Timothy Larson, Sally Liu, Noah Seixas, and Timoty Nyerges, Prospective Study of Atherosclerosis, Clinical Cardiovascular Disease, and Long-Term Exposure to Ambient Particulate Matter and Other Air Pollutants in a Multi-Ethnic Cohort. The U.S. Environmental Protection Agency, \$29,999,090 (\$300,000 for my research), Sept. 2004 – Aug. 2014.
43. PI with Mark Hallenbeck (co-PI), South Snohomish Regional Transit Signal Priority (SS-RTSP) Evaluation, the United State Department of Transportation, \$300,000 (\$280,000 for my research), Feb. 2004 – Sept. 2007.
44. PI with Nancy L. Nihan (co-PI), Improving Truck and Speed Data Using Paired Single-Loop and Video Sensors, Washington State Department of Transportation, \$90,000 (\$81,000 for my research), Feb. 2004 – Sept. 2006.
45. Co-PI with Nancy L. Nihan (PI), Improving Dual-Loop Truck (and Speed) Data: Quick Detection of Malfunctioning Loops and Calculation of Required Adjustments. Washington State Department of Transportation. \$90,000 (\$50,000 for my research). Dec. 2003 – July 2006.
46. PI with Nancy L. Nihan (co-PI), Developing A Portable Long-Vehicle Counter Using Video Image Processing, TransNow, \$73,920 (\$66,528 for my research), Sept. 2003 – Feb. 2006.
47. Co-PI with Nancy L. Nihan (PI), Improving Dual-Loop Truck (and Speed) Data: Quick Detection of Malfunctioning Loops and Calculation of Required Adjustments, TransNow, \$73,920 (\$40,000 for my research), Sept. 2003 – Feb. 2006.
48. Co-PI with Nancy L. Nihan (PI), Improved System for Collecting Real-Time Truck Data from Dual-Loop Detectors, TransNow, \$179,458 (\$70,000 for my research), Sept. 2001 – Aug. 2004.
49. Research contributor with Mark Hallenbeck (PI). Archived Data Analysis, Washington State Department of Transportation, \$165,000 (\$50,000 subcontracted to my research), Aug. 2001 – June 2003.
50. Co-PI with Guangyi Zhao (PI) and Zuoyuan Wang, Evaluation of Infrastructure Damage in the 1991 Anhui Flood, China National Science Foundation, RMB¥ 50,000 (or \$7,353. \$6,000 for my research), Oct. 1991 – Sept. 1993.

Pending Proposals

51. PI with Bill Howe and Alon Bassok. EAGER: Developing an Interoperable Digital Roadway Interactive Visualization and Evaluation Network (DRIVE Net) for Traffic, Air Pollution, and Public Health Data Sharing and Studies, \$299,999, National Science Foundation. Pending.
52. PI. Exploring the Development of an Intelligent Network Based Traffic Data Acquisition and Modeling Platform to Increase Traffic Operation Efficiency and Enable Performance Measurements, \$389,000, Federal Highway Administration. Pending.

Un-sponsored research

1. Digital Roadway Interactive Visualization and Evaluation Network (DRIVE Net), Mar. 2009 – present, future funding and public importance.
2. Transportation control network security, Mar. 2008 – present, future funding and public importance.
3. Application of computer network theories to roadway networks, Oct. 2002 – present, future funding and public importance.
4. Vehicle tracking using video image processing, June 2005 – June 2006, future research development and funding.
5. Traffic Accident Modeling, Nov. 1998 – June 2005, publications and future funding.
6. Video image processing for traffic data collection, Jan. 2002 – June 2003, future funding and public importance.
7. Internet reachability, Oct. 2002 – May 2003, publication and future funding.

DOCUMENTATION OF TEACHING EFFECTIVENESS

Courses Taught & Student Evaluations

Courses Taught:

Course Number	Course Title	Quarter	Credit Hours	Student Enrollment	Class Evaluations
CEE 320	Transportation Engineering	SP11	3	64	Yes
CEE 412	Transportation Data Management and Analysis	WI11	3	44	Yes
CEE 599	Transportation Data Management and Analysis	WI11	3	6	Yes
CEE 590	Traffic Systems Operation	AU10	3	16	Yes
CEE 594	Computer-Aided Construction	SU10	3	12	Yes**
TU	Traffic Systems Operation	SP10	3	16	Yes**
CEE 594	Computer-Aided Construction	SU09	3	16	Yes**
CEE 320	Transportation Engineering	SP09	3	57	Yes

CEE 412	Transportation Data Management and Analysis	WI09	3	40	Yes
CEE 599D	Transportation Data Management and Analysis	WI09	3	10	Yes
CEE 590	Traffic Systems Operation	AU08	3	20	Yes
CEE 594	Computer-Aided Construction	SU08	3	11	Yes**
CEE 590	Traffic Systems Operation	SP08	3	13	Yes
CEE 500D	Transportation and Construction Seminar	SP08	1	30	No
CEE 412	Transportation Data Management and Analysis	WI08	3	32	Yes
CEE 599D	Transportation Data Management and Analysis	WI08	3	12	Yes
CEE 320	Transportation Engineering I	AU07	3	45	Yes
CEE 594	Computer-Aided Construction	SU07	3	9	Yes**
CEE 590 ⁺	Traffic Systems Operation	SP07	3	11	Yes
CEE 498A ⁺	Traffic Systems Operation	SP07	3	9	Yes
CEE 599D	Transportation Data Management and Analysis	WI07	3	9	Yes
CEE 412	Transportation Data Management and Analysis	WI07	3	18	Yes
CEE 320	Transportation Engineering I	AU06	3	60	Yes
CEE 594	Computer-Aided Construction	SU06	3	15	Yes**
CEE 320	Transportation Engineering I	SP06	3	40	Yes
CEE 500C	Transportation and Construction Seminar	AU05	1	18	No
CEE 599A	Transportation Data Management and Analysis	AU05	3	7	Yes
CEE 412	Transportation Data Management and Analysis	AU05	3	22	Yes
CEE 599TU	Computer-Aided Construction	SU05	3	6	Yes**
CEE 320 ⁺	Transportation Engineering I	SP05	3	52	Yes
CEE 500E	Transportation and Construction Seminar	AU04	1	20	No
CEE 599D	Transportation Data Management and Analysis	AU04	3	10	Yes
CEE 498D	Transportation Data Management and Analysis	AU04	3	8	Yes

CEE 599TU*	Computer-Aided Construction	SU04	3	10	Yes**
CEE 599F	Advanced Traffic Detection Systems	SP04	3	6	Yes
CEE 599D	Transportation Data Management and Analysis	AU03	3	9	Yes
CEE 498D*	Transportation Data Management and Analysis	AU03	3	6	Yes
CEE 599F*	Advanced Traffic Detection Systems	SP03	3	10	Yes

* New course.

+ Teach in the first time and significantly revised the course content

** UWEO or other evaluation system

Supervision of independent study (design projects and research)

Total number of students advised: 19

Student	Research Topic	Quarter	Credits
Zhuohong Shen	MAC Address Detection Using Android Phone	SP11	3
Melyssa Nagamine	Mobile-Device Based Pedestrian Data Analysis	WI11	1
Zhuohong Shen	MAC Address Detection Using Android Phone	WI11	2
Aaron Knight	Linking Roadway Network for DriveNet	SP10	2
Kadri Mufti	Time Series Analysis Methods Comparison	SP10	3
Basma Makari	Individual Vehicle Speed Data Analysis	WI09	2
Nghia Duc Pham	Loop Detector Data Quality Analysis	SP07	2
Yegor Malinovskiy	Model-Free Pedestrian Tracking	WI07	2
Christopher Corpuz Dela Pena	Simulation of incident-induced delay	AU06	3
Ngan Ha Nguyen	Two-lane traffic accident data management	SU06	2
Torbjorn R. Stenbeck	Pavement Maintenance Cost Modeling (CEE600)	SU06	5
Yegor Malinovskiy	Pedestrian Tracking Using Video Image Processing	SP06	3
Nicholas Richard Wilson	Hardware-in-the-Loop Simulation	SP06	3
Torbjorn R. Stenbeck	Pavement Maintenance Cost Modeling (CEE600)	SP06	5
Quang Dai Nguyen	Ramp Meter Control Models	SP06	5
Chun Wah Wen	Video detector evaluation	WI06	2
Torbjorn R.	Pavement Maintenance Cost Analysis (CEE600)	WI06	5

Stenbeck				
Takashi Baba	Traffic simulation models	SP05		3
Man-Hei Ng	Video-based traffic data collection	SP05		1
Basma Makari	WSDOT traffic flow map reorganization	WI05		3
Thong Mai	Transportation data management systems	WI05		3
Arianne Reidinger	Ramp meter control efficiency	SP04		4

List of other teaching contributions

Teaching workshops attended:

College of Engineering Workshop on Advising and Mentoring Graduate Students (Dec. 2004)
 College of Engineering New Faculty Workshop (Sept. 2003)
 Eighth Annual Faculty Workshops on Teaching and Learning (Aug. 2003)
 College of Engineering Grant Writing Workshop (Feb. 2003)
 Catalyst’s “Quizzes and Surveys Using WebQ” Workshop (Sept. 2002)
 Educating the 21st Century Transportation Professional Conference (July 1999)

Other workshops attended:

College of Engineering NSF Presentation by Dr. Michael Reischman (Nov. 2007)
 College of Engineering Workshop on “Nuts and Bolts of Managing a Research Lab” (May 2005)
 NSF Civil and Mechanical Systems’ Infrastructure & Information Systems (IIS) Proposal Workshop. (Apr. 2005)
 College of Engineering NSF Career Grant Writing Workshop (Apr. 2005)
 College of Engineering NSF Career Proposal Writing Workshop (May 2004)
 College of Engineering Grant Writing Workshop (Feb. 2004)
 ADVANCE Leadership Workshop (Oct. 2003)

Seminar Organized:

TransNow ITS Group Weekly Seminar (Sept. 2001 – Aug. 2003)
 STAR Lab Weekly Seminar (Sept. 2003 – present)

Short Courses Taught:

Traffic System Operations, Tsinghua University, China, April 2010.
 Traffic Data Sensing, Harbin Institute of Technology, China, August 2008.
 Traffic Signal Control Technologies, Dalian University of Technology, China, August 2007.
 Traffic Detection Systems Introduction, Tsinghua University, China, August 2004.

Other supporting documents

My courses were evaluated by

Joe Mahoney
Nancy Nihan
Scott Rutherford

Courses Developed:

CEE 579: Advanced Traffic Detection Systems
CEE 412: Transportation Data Management and Analysis
CEE 594: Computer-Aided Construction
CEE 590: Traffic System Control and Simulation

Laboratory under Development:

Smart Transportation Applications and Research Laboratory (STAR Lab).

Teaching Awards, Nominations for Teaching Awards

Teaching Awards at the University of Washington:

None.

Nominations for Teaching Awards at the University of Washington:

College of Engineering Faculty Innovator: Teaching and Learning Award, 2009.
Second place in the CEE Best Teaching Award, 2008.
Marsha L. Landolt Distinguished Graduate Mentor Award, 2006.
University of Washington Excellence in Teaching Award, 2005.

SERVICE

Departmental service

Professorship committee, June 2011 – October 2011.
Mentor committee chair for Dr. Erkan Istanbuluoglu, 2011 - present.
Mentor committee chair for Dr. Ed McCormack, 2009 - present.
Mentor committee member for Dr. Jessica Lundquist, 2009 - present.
Search committee chair for the Transportation Engineering position, 2008-2009.
Search committee for the Multi-Hazard Engineering and Sustainable Water Resources positions, 2007-2008.
Search committee for chair of the Department of Civil and Environmental Engineering, 2006-2007.
Strategic hiring committee, 2006-2007.
Engineering open house demonstrations, 2002 – 2006.
Search committee for assistant professors in transportation engineering and hydrology, 2005.
Search committee for assistant professor in construction engineering, 2004.
Search committee for research assistant professor in water resource & hydrology, 2004.

College service

Engineering Library Committee, 2004-present.

University service

Faculty advisor for ITE Student Chapter at the University of Washington, 2004- present.

Professional society and other service

President of COTA, 2010 – 2012.

Members on the IEEE Intelligent Transportation Systems Society Board of Governors, June 2011 – May 2014.

Program Co-Chair, the 15th International IEEE Conference on Intelligent Transportation Systems. Anchorage, Alaska, September 16-19, 2012.

Vice Conference Chair, the 2012 North America Travel Monitoring Exposition and Conference, Transportation Research Board, June 2012, Texas.

Conference Chair, the 2011 International Conference for Chinese Transportation Professionals (ICCTP), August 15-18, 2011, Nanjing, China.

Conference Chair, the 14th Annual COTA/WCTA Technical Symposium on Important Issues of Transportation Development in China, Jan. 23, 2011. Washington D.C.

Vice Conference Chair, the 2010 International Conference for Chinese Transportation Professionals (ICCTP), August 4-8, 2010, Beijing, China.

Publication Chair, the 2010 IEEE Symposium on Intelligent Vehicles, San Diego, California. June 21-25, 2010.

Associate Editor for ASCE Journal of Computing in Civil Engineering, 2007-present.

Member of Highway Capacity and Quality of Services Committee (AHB40), Transportation Research Board, 2011- present.

Research Subcommittee Chair for Highway Capacity and Quality of Services Committee (AHB40), Transportation Research Board, 2011- present.

Member of Freeway Operations Committee (AHB20), Transportation Research Board, 2006-present.

Member of Transportation Information Systems and Technology Committee (ABJ50), Transportation Research Board, 2010- present.

Member of the Advanced Technology Committee, Transportation & Development Institute, American Society of Civil Engineers, 2008-present.

Board member for Chinese Overseas Transportation Association (COTA), 2007-present.

Session Chair for WA3: Simulation and Modeling 3 at the 13th International IEEE Conference on Intelligent Transportation Systems, Madeira Island, Portugal. September 19-22, 2010.

Vice President of NACOTA, 2008 – 2010.

Executive Chair, the 2009 International Conference for Chinese Transportation Professionals (ICCTP), August 5-9, 2009, Harbin, China.

Session chair for Session 553, Performance Analysis of Lanes Managed with Variable Tolls, 2010, at the 89th Annual Meeting of Transportation Research Board. Jan. 12, 2010. Washington D.C.

Chair of the Pacific-Rim Board of Advisors, Second International Symposium on Freeway and Tollway Operations, June 21-12, 2009, Honolulu, Hawaii.

Advisory Committee Chair, the 12th Annual NACOTA/WCTA Technical Symposium on Important Issues of Transportation Development in China, Jan. 11, 2009. Washington D.C.

Chair of the Plenary Session 4: The State of the Art in Traffic Operations, Second International Symposium on Freeway and Tollway Operations Conference, Honolulu, Hawaii, June 2009.

Executive Chair, the 11th Annual NACOTA/WCTA Technical Symposium on Important Issues of Transportation Development in China, Jan. 13, 2008. Washington D.C.

Member of the Best Paper Selection Committee, Journal of Computing in Civil Engineering, July 2007 – present.

Session chair for Session 5 in Track 5: Meeting Demand Through Variable Pricing, 2008 Freeway and Tollway Operations Conference, Fort Lauderdale, Florida, June 2008.

Publication Chair, the 10th International IEEE Conference on Intelligent Transportation Systems. Seattle, Washington. 2007.

Session chair for Session 318, Freeway Operations 2006, at the 85th Annual Meeting of Transportation Research Board. Jan. 23, 2006. Washington D.C.

Member of International Program Committee, The First International Conference on Transportation Logistics, July 27-29, 2005, Singapore.

Member of ITE Washington Board, 2004 – present.

Member of ITE Traffic Engineering Council Executive Committee, 2004 – present.

Session chair for Applications of Informatics and Cybernetics in Science and Engineering I, the 2004 Conference of Systemics, Cybernetics, and Informatics. July 19, 2004. Orlando, FL.

Session chair for Session D6-01, Enroute Driver Behavior: Issues and Methods, at the 9th World Conference on Transport Research. July 24, 2001. Seoul, Korea

TransNow ITS Program coordinator, 2001 – present.

Partner of the Precision Forestry Cooperative, University of Washington, 2001 – present.

Community service

Chair of Parents Teacher Association at Northwest Chinese School, June 2002-May 2003.

International, national or governmental service

NSF Proposal Review Panel (2006)

NSF Proposal Review Panel (2005)

Paper Reviewer for AHB20 – Freeway Operations, TRB (2000 – present)

Paper Reviewer for AHB45 – Traffic Flow Theory, TRB (2009 – present)

Paper Reviewer for AHB15 – Intelligent Transportation Systems, TRB (2009 – present)

Paper Reviewer for ABJ50 – Information Systems and Technology, TRB (2003 – present)

Paper Reviewer for ABJ90 – Freight Transportation Data, TRB (2009 – present)

Paper Reviewer for AHB25 – Traffic Signal Systems Committee, TRB (2004 – present)

Proposal/Report Reviewer for TransNow (2002 – present)

All other service

President of the Association of Tsinghua Alumni in Transportation, Jan. 2008 – Jan. 2010.

Vice president of the Tsinghua Alumni Association in the Greater Seattle Area (2000 – present).

President of the Association of Tsinghua Alumni in Transportation (2008 – present).

The 15th President of the Chinese Student Association at the Univ. of Tokyo (Apr. 1997-Mar. 1998).