

Peter T Martin

Professor

Civil & Environmental Engineering

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SUMMARY

Qualifications

PhD	Transportation Modeling	University of Nottingham, England	1992
MS	Air, Maritime & Road Transport	University of Wales, UK	1987
BS	Civil & Structural Engineering	University of Wales, UK	1975

Experience

2008 to date PROFESSOR, CIVIL & ENVIRONMENTAL ENGINEERING, UNIVERSITY OF UTAH, SALT LAKE CITY, (with tenure)
Research: Director, University of Utah Traffic Laboratory of the Mountain Plains Consortium
Advanced Transportation Systems, Distance Learning
Teaching: Transportation Courses –freshman to PhD; Video Conference “Blended” Distance Graduate Courses across 4 Western Universities (to NDSU, U of WY, CO State)
Service: University Senate, Chair Retention/Promotion/Tenure Departmental Committee, Member National Transportation Research Board Traffic Signal Systems Committee, NCHRP Panelist, Advisor Utah D.O.T.

2000 to 2008 ASSOCIATE PROFESSOR, CIVIL & ENVIRONMENTAL ENGINEERING, UNIVERSITY OF UTAH, SALT LAKE CITY, (with tenure)
Research: Director, University of Utah Traffic Laboratory of the Mountain Plains Consortium
Advanced Transportation Systems, Distance Learning
Teaching: Transportation Courses –freshman to PhD; Video Conference “Blended” Distance Graduate Courses across 4 Western Universities (to NDSU, U of WY, CO State)
Service: Director of Graduate Studies, Member National Transportation Research Board Traffic Signal Systems Committee, NCHRP Panelist, Advisor Utah D.O.T.

1994 to 2000 ASSOCIATE PROFESSOR, CIVIL & ENVIRONMENTAL ENGINEERING, UNIVERSITY OF UTAH, SALT LAKE CITY, (without tenure)
Research: Advanced Transportation Systems
Teaching: Transportation Courses –freshman to PhD;
Service: NSF Panel Review, Advisor Salt Lake City Council

1993 to 1994 VISITING PROFESSOR, CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO
Research: Transportation System Evaluations
Teaching: Transportation Engineering

1989 to 1992 LECTURER (PART-TIME) UNIVERSITY OF NOTTINGHAM, ENGLAND
Research: Part-time PhD student, and Research Assistant: Transportation
Teaching: Transportation Engineering, Statistics

1984 to 1988 LECTURER, POLYTECHNIC OF WALES, U.K.; Part-time MS in Transportation
Teaching: Transportation Engineering, Construction Management, Geotechnics

1982 to 1984 MUNICIPAL ENGINEER, MONMOUTH CITY, WALES, U.K.
Management: Highway Engineer, promotion, design & supervision of municipal works

1980 to 1982 SITE ENGINEER, HOWARD HUMPHREYS & PARTNERS, LONDON, U.K.
Management: Site supervision of a 10 mile Road & Bridge contract

1978 to 1979 CONSTRUCTION ENGINEER, GALLIFORD, CIVIL ENGINEERING CONTRACTORS,
LEICESTER, ENGLAND. Road & Bridge Construction,
Management: direct supervision of craftsmen

1975 to 1978 DESIGN ENGINEER, ROAD CONSTRUCTION UNIT (UK GOVERNMENT), WAKEFIELD,
ENGLAND. Transportation Planning, Major Road and Bridge Design, Traffic Modeling.

CURRICULUM VITAE

Qualifications

Academic

PhD	University of Nottingham, U.K. "Urban Traffic Movement Prediction from Automatic Flow Detection", 1992
MS	University of Wales, Cardiff, U.K. Air, Rail, Maritime & Road Transport, 1987
BS	University of Wales, Swansea, U.K. BS, (magna cum laude) Civil and Structural Engineering, 1975

Professional

1997-	Member of the American Association of Engineering Educators Member of the Institute of Transportation Engineers, US Member Institution of Highway & Transportation Engineers, U.K. Member Institution of Civil Engineers, U.K. ("P.E")
1995-	
1987 -	
1978 -	

Research Experience

199-present	<u>Director</u> , University of Utah Transportation Center (MPC Regional)
1994 - present	<u>Director</u> , Utah Traffic Laboratory
2008 - 2011	<u>Associate Graduate Faculty</u> , North Dakota State University, Fort Collins, CO
2008	<u>Faculty Affiliate</u> , Department of Civil & Environmental Engineering, Colorado State University, Fort Collins, CO
2008	<u>Adjunct Graduate Faculty</u> , South Dakota State University, Brookings, SD

Principal Investigator

2/05-3/08	Utah Department of Transportation	Utah Department of Transportations Traffic Operations Center Operator Training	\$187,620
10/07-9/08	Utah Transit Authority	Modeling Before and After Conditions for Bus Rapid Transit Project on 3500 South Street	\$31,460
7/07-6/08	Utah Department of Transportation	Evaluation of Optimal Traffic Monitoring Station Spacing on Freeways	\$121,086
7/07-6/08	Mountain Plains Consortium- USDOT	Express Lane Genetic Algorithm Microsimulation Evaluation Part 2	\$209,282
		Evaluation of Optimal Traffic Monitoring Station Spacing on Freeways	
		Express Lane Genetic Algorithm Microsimulation Evaluation Part 2	

7/06–6/07	Mountain Plains Consortium-USDOT	Analysis of the I-15 Express Lane Pilot Project	\$211,689
		Adaptive Signal Control V	
7/06–8/07	Utah Department of Transportation	Analysis of the I-15 Express Lane Pilot Project	\$84,848
7/06–10/07	Utah Department of Transportation	Adaptive Signal Control V	\$45,000
6/06–5/07	Salt Lake City Corporation	Olympic Internship	\$40,000
4/05–6/07	Utah Department of Transportation	Traffic Operations Internship	\$25,000
7/05–7/06	Mountain Plains Consortium –USDOT	Design/Build vs Traditional Construction User Delay Modeling	\$75,000
7/03–12/04	Utah Department of Transportation	Fast Track Highway Construction analysis	\$30,000
2/05–2/06	Utah Department of Transportation	Design/Build vs Traditional Construction User Delay Modeling	\$74,999
4/05–6/06	Utah Department of Transportation	Traffic Center Intern program	\$30,000
6/05–12/06	Utah Department of Transportation	On-line Traffic Assessment of Creative Highway Administration Techniques	\$75,000
2/05–1/08	Utah Department of Transportation	Evaluating Design-Build Contracting Methods for Statewide Transportation Improvement Plan projects	\$75,000
6/05-6-06	Salt Lake City Corporation	Olympic Internship,	\$40,000
7/04–6/05	Utah Department of Transportation	Adaptive Signal Control IV	\$85,000
		High Occupancy Vehicle Lanes Evaluation III	
		Effectiveness of Traveler Information Systems	
6/04–6/05	Salt Lake City Corporation	Olympic Internship	\$40,000
7/04–12/05	Mountain Plains Consortium–USDOT	Adaptive Signal Control IV	\$141,840
		High Occupancy Vehicle Lanes Evaluation III	
		Effectiveness of Traveler Information Systems	
		Utah Intersection Safety: Issues, Contributing Factors and Mitigations	
7/03–6/04	Utah Department of Transportation	Assessing the User Impacts of Fast Track Construction Phase III	\$30,000
7/03–6/04	Utah Department of Transportation	Adaptive Signal Control III	\$100,000
		Video Imaging System Evaluation	
		High Occupancy Vehicle Evaluation II	
7/03–6/04	Mountain Plains Consortium - USDOT	Adaptive Signal Control III	\$128,900
		Video Imaging System Evaluation	
		High Occupancy Vehicle Evaluation	

		II	
9/02–2/06	National Science Foundation	Urban Trace Gas Emissions	\$127,386
12/02–12/03	Utah Department of Transportation	Expected Value Accident Analysis	\$9,598
5/02–1/03	University of Utah	Parking Survey: an assessment of the critical parking problem	\$13,056
7/02–6/03	Mountain Plains Consortium - USDOT	Automated Data Collection, Analysis, and Archival	\$153,900
		Evaluate Effectiveness of Dilemma Zone Advanced Signal Warning	
		Affordable Trip Feasibility Scheduling for Rural Paratransit Systems	
7/02–6/03	Utah Department of Transportation	Automated Data Collection, Analysis, and Archival	\$127,320
		Detector Technology Evaluation	
		Evaluate Effectiveness of Dilemma Zone Advanced Signal Warning	
8/01–3/03	Utah Department of Transportation	Assessing the User Impacts of Fast Track Construction Phase II	\$93,463
6/01–6/04	Salt Lake City Corporation	Olympic Internship,	\$40,000
7/01-6/02	Utah Department of Transportation	Surface Street Level of Service Using Existing Detector Infrastructure	\$106,200
		Advanced Traffic Management System Evaluation Data Collection Methodology	
		Adaptive Signal Control for Downtown SLC	
		Evaluating and Improving the Safety of Pedestrian Crossing in Utah Traffic Lab	
		Intelligent Transportation Systems Course Development	
7/01–6/02	Mountain Plains Consortium-USDOT	Surface Street Level of Service Using Existing Detector Infrastructure	\$128,371
		Advanced Traffic Management System Evaluation Data Collection Methodology	
		Adaptive Signal Control for Downtown SLC	
		Evaluating and Improving the Safety of Pedestrian Crossing in Utah Traffic Lab	
		Intelligent Transportation Systems Course Development	
7/01–11/01	Transcore Engineering	Bus Transit Signal Priority Project	\$16,403

11/00-1/01	Utah Department of Transportation	Scoping Study: Assessing the User Impacts of Fast Track Construction	\$9,969
9/00-9/05	FWHA/TOC Development	Advanced Traffic Management System Research and Development Facility	\$128,371
10/00-9/01	Utah Transit Authority	UTA-Paratransit Internship	\$24,745
9/00-8/01	Transcore Inc.	UTA Bus Stop Inventory	\$60,000
7/00-12/01	Utah Department of Transportation	Accident Data Availability	\$115,200
		Evaluation of Road Weather Information System (RWIS) Data and Dissemination of Data to Public	
6/00-5/01	Salt Lake City Corporation	Olympic Internship	\$16,786
6/00-6/01	Brigham Young University	Evaluation of Coordinated Ramp Metering Algorithms	\$6,500
7/99-12/00	Utah Department of Transportation	Accident Data Availability	\$100,000
		Evaluation of Road Weather Information System (RWIS) Data and Dissemination of Data to Public	
7/99-12/00	Mountain Plains Consortium-USDOT	Accident Data Availability	\$133,700
		Evaluation of Road Weather Information System (RWIS) Data and Dissemination of Data to Public	
3/99-7/99	Utah Transit Authority	West-East Light Rail	\$33,000
2/99-6/02	Utah Department of Transportation	Adverse Visibility Information System Evaluation (ADVISE),	\$40,000
12/98-1/99	Sear Brown	Traffic Counts for Sear Brown,	\$2990
12/97-6/98	Utah State University and Mountain Plains Consortium - USDOT	Research and Development of a Networked Shadow Advanced Traffic Operations Center to Model Signal Timing for Severe Weather Conditions,	\$78,314
11/97-10/98	Mountain Plains Consortium-USDOT	Traffic Operations Center Development - Video Conferencing Equipment	\$76,000
11/97-10/98	Utah Department of Transportation	Traffic Signal Timing for Inclement Weather,	\$25,000
11/97-10/98	Engineering Information Foundation	Educational Technology and Distance Learning,	\$10,000
10/97-1099	Utah Department of Transportation	Traffic Operations Center Development - Graduate Internships	\$79,000
11/97-8/99	Utah Department of Transportation	DOT Graduate Research Assistantship for Traffic Operation Center	\$36,500
May 1997	The Federal Corporation for National and Community Service 1997 SEAMS Award	Traffic Engineering	\$1,100

5/97-4/98	National Research Council, National Academy of Sciences	Real-time Flow Estimation Model,	\$70,262
3/97-12/98	Utah Department of Transportation	Implementing Roadweather Information Systems (RWIS),	\$34,924
10/96-6/98	Utah Department of Transportation	Graduate Research Scholarship	\$36,500
10/96-6/00	Salt Lake City Corporation	Salt Lake City Graduate Research Assistantship	\$50,358
August 1996	Mountain Plains Consortium-USDOT Utah Transportation Center (Logan), Utah	Cross Flow Strategic Optimization of Traffic Signal Systems	\$12,000
August 1996	Utah Department of Transportation	Innovative Funding for a new Highway in Davis County, Utah	\$6,000

Consulting Activity

- Confidential Invention Disclosure: Inventor 1: Martin P.T., Inventor 2: Stevanovic A.Z., “Genetic Algorithm for traffic signal optimization through PTV America’s VISSIM traffic simulation tool.” December 2005
- Expert Witness, Traffic Calming Analysis, Utah County, Fall 2006
- Expert Witness, Road Traffic Accident Reconstruction analysis, Utah County, Fall 2000
- Minneapolis Department of Transportation, Evaluation of SCOOT Adaptive Traffic Signal Control System, April 98-Dec 00
- Field Operational Test, SCOOT Adaptive Traffic Signal Control System, Anaheim, California -February 1998
- City of Dalian Traffic Police, China, Area Traffic Control System, December 1997, February 1998
- Mumbai (Bombay) Metropolitan Regional Transport Authority, Area Traffic Control System, March 1996, August 1997

Utah Teaching Experience

CVEEN 1000*	Introduction to Civil and Environmental Engineering (97,99)
CVEEN 370	Highway Engineering (97)
CVEEN 420	Traffic Engineering (95, 96, 97, 98)
CVEEN 420SL*	Traffic Engineering (97) - Service Learning
CVEEN 491	Senior Design (96)
CVEEN 571SL*	Traffic Flow Theory (Service Learning Class) (94, 95, 96, 97)
CVEEN 3100*	Technical Communication for Engineers (03)
CVEEN 3520	Transportation Engineering (98, 99, 04, 05, 07, 08)
CVEEN7540*#	Intelligent Transportation Systems (96, 98, 00, 03, 05, 08)
CVEEN7545*#	Transportation Modeling* (96, 99, 02)
CVEEN 5530*#	Quantitative Methods in Transportation (95, 97, 98, 01, 02, 04)
CVEEN 7580*#	Advanced Technical Communication (01, 02, 03, 06, 07)
CVEEN 7290*#	Scientific Methods in Transportation Research (06)
CVEEN 7920*#	Advanced Traffic Signals Systems Research (07)

*new courses developed

video conference distance class

93 - '94

Visiting Professor, Department of Civil and Environmental Engineering,
California Polytechnic State University, San Luis Obispo, California

Research

Principal Investigator

1. Intelligent Traffic Control Through Turning Movement Estimation from Automatic Flow Detection \$65k - (PATH U.C. Berkeley) - Oct 93-Oct 95 [European "DRIVE " initiated doctoral research]

Co-Investigator

2. The Development and Assessment of Advanced Travel Management and Information Systems Demonstration of The Split Cycle Offset Optimization Technique (SCOOT) through Simulation - \$2m - CALTRANS [ITS Field Operational Test of Adaptive Signal Control]
3. Automated Highway Systems - Precursor Systems Analysis - the identification of the differences and similarities of issues and risks associated with rural and urban Automated Highway Systems - Federal Highways Administration, Sacramento (FHWA) - \$180k
4. Evaluation of the Operational Impacts of a Variable-Toll High Occupancy Vehicle Facility in the SR 91 Corridor - \$250k - FHWA & CALTRANS

- * **Teaching**
Support to Department of Civil and Environmental Engineering:
Advanced Transportation Design, Transportation Modeling and
Simulation [Grad], Introduction to Transportation Engineering, Water
Engineering[sophomore]

1989 - 1992

Lecturer Department of Civil Engineering, University of Nottingham, U.K
(Tenure offered by the University of Nottingham, U.K, but turned down due to
the opportunity to take up a Research Post in California).

- * **Research** - the development of Artificial Intelligence for traffic control
- *DRIVE* (European Commission)
- * PhD - the application of a network flow algorithm to infer turning
movements from flows
- * Traffic route patterns under SCOOT influence SERC (UK
Government)
- * Origin & Destination derivation from License Plate observation
- * Supervised graduate research
- * 15 publications

- * **Teaching** - undergraduate and graduate: Transportation, Economic
Evaluation, Computer Methods, Statistics (to the Department of
Industrial Engineering)
- * Developed new Masters program in Transportation Engineering

- * **Administration** - International Conference Organizer: Universities
Transport Studies Group (UTSG), Nottingham, January 1991 (150
participants)
- * Devised and ran 6 new profitable short courses for industry
- * Developed and managed 40 station Departmental Macintosh computer
network
- * Initiated international student exchanges - Lyon (France), Karlsruhe &
Dresden (Germany), Valencia (Spain), Trieste (Italy) - secured
European funding support

- * **Consulting** - 3 Assignments (public & private sector)

1984 - 1988

Lecturer Department of Civil Engineering and Building, Polytechnic of Wales,
U.K.

- * **Research** - lane occupancy of heavy vehicles, TRRL supported, 4
publications
- * Part-time MS in Transportation Planning, Univ. of Wales
- * **Teaching** - Highway and Traffic Engineering, Contract Administration,
Contract Law, Geotechnics
- * **Consulting** - six contracts in traffic management and geotechnics.

Industrial Experience

- 1982 - 1984
- Municipal Engineer
Monmouth City, U.K.
- * Lead a multi-purpose design team of six people in the promotion of the City's capital works program
 - * Preparation of contracts, estimating, tendering
 - * Highway re-alignments, car parks, intersection improvements, traffic management schemes, pedestrianization schemes
- 1980 - 1982
- Site Engineer
Howard Humphreys & Partners, Consulting Engineers, London, U.K.
- * Client oriented supervisor on 10 mile road and bridge contract, Pontypool, Wales, U.K.
 - * Lead a team of junior engineers and inspectors
 - * Coordinated the various interests of the main contractor, sub-contractors, the client, local authorities, British Rail, Statutory Undertakers, and the Police
 - * Special responsibility for the line, level and structural integrity of 6 rail and river crossings
- 1978 - 1979
- Construction Engineer
Galliford and Sons Ltd., Civil Engineering Contractors, Leicestershire, U.K.
- * Direct responsibility for management of 55 craftsmen & laborers
 - * Ensuring the supply of materials, setting-out the work plan and bonus / incentive administration
 - * responsible for the construction of three road bridges, two culverts, and two subways
- 1975 - 1978
- Design Engineer
Road Construction Unit (National Government), Wakefield, West Yorkshire, U.K.
- * Estate Road Section Multi-disciplinary Design Team (Housing Development) detailed planning of the roads, landscaped areas, roadway drainage systems, and sewer systems
 - * Motorway (Freeway) and urban road design

Publications

Books, Chapters, and Book Reviews

1. Martin P.T. (2000) Monograph "Service Learning and Civil and Environmental Engineering: A Department Shows How It Can Be Done", American Association for Higher Education series on Service Learning in the Disciplines, Series on Service-Learning in the Discipline, Washington D.C. pp 137.-151.
2. Martin P.T. and Coles J. (2000) Monograph "How To Institutionalize Service Learning Into The Curriculum Of An Engineering Department: The Design Of A Workable Plan", American Association for Higher Education series on Service Learning in the Disciplines, Washington D.C. pp 41.-51.
3. Martin P.T. and Skliar M. (1997) "Dynamic Flow Estimation with Kalman Filtering", Sustainable Manufacturing for Global Business, Compendium of papers for the First International Conference on Managing Enterprises - Stakeholders, Engineering, Logistics and Achievement (ME-SELA '97), Mechanical Engineering Publications Limited, London and Bury St Edmunds, UK. pp 337-342.

Refereed Journal Publications

1. Stevanovic, A.Z., Martin, P.T. (2008) "An Assessment of the Suitability of Microsimulation as a Tool for the Evaluation of Macroscopically Optimized Traffic Signal Timings." Journal of Transportation Engineering, American Society of Civil Engineers, Volume 134, Issue 2, pp. 59-67 (February 2008).
2. Stevanovic A.Z., Martin P.T. "SCOOT and Coordinated Actuated Traffic Control Evaluated through Microsimulation" (2008) Transportation Research Record, Journal of the Transportation Research Board, No. 2080 (2008) 48-56.
3. Stevanovic, J., Stevanovic, A.Z., Martin, P.T., Bauer, T. (2008) "Stochastic Optimization of Traffic Control and Transit Priority Settings in VISSIM". Transportation Research Part C, Vol. 16 No. 3 (2008) 332-349.
4. Stevanovic, A.Z., Martin, P.T., and Stevanovic, J. (2007) "VISGAOST: VISSIM-based Genetic Algorithm Optimization of Signal Timings." Transportation Research Record, Journal of the Transportation Research Board, No. 2035 (2007) 59-68.
5. Vladislavljevic, I., Martin, P.T., and Stevanovic, A.Z. (2007) "Integration of Mathematical and Physical Simulation to Calibrate Car-Following Behavior of Unimpaired and Impaired Drivers." World Review of Intermodal Transportation Research, Vol. 1 No. 4 (2007) 403-418.
6. Cottrell W., Kim N., Martin P.T., Perrin H.J (2006) "Effectiveness of Traffic Management in Salt Lake City, Utah," Journal of Safety Research, Pergamon, 7 27-41.
7. Stevanovic A.Z., Martin P.T., Disegni R. (2005) "Comparative Analysis of Travel Impacts between the Design Build and Traditional Building Methods" Journal of

Transportation Engineering American Society of Civil Engineers, Vol 131 No. 9 708-716.

8. Chilukuri B.R., Perrin H.J., Martin P.T. (2004) "SCOOT and Incidents, Performance Evaluation in a Simulation Environment" – Transportation Research Record 1867: 224-232, National Academy of Sciences.
9. Perrin H.J., Martin P.T., Coleman B. (2002) "Monitoring Commuter Congestion on Surface Streets in Real Time" – Transportation Research Record 1811:107-114, National Academy of Sciences.
10. Perrin H.J., Martin P.T., Hansen B.G. (2001) "Modifying Signal Timing During Inclement Weather", Transportation Research Record 1748: 66: 71, National Academy of Sciences.
11. Hansen B.G, Martin P.T., Perrin H.J., Meldrum D. (2001) "Delivering Road Weather Information to Traveling Public", Transportation Research Record 1745: 46-52, National Academy of Sciences.
12. Guegan D., Martin P.T., Cottrell W. (2000) "Prioritizing Traffic Calming Projects Using the Analytic Hierarchy", Transportation Research Record 1708:61-67, National Academy of Sciences.
13. Perrin H.J., Martin P.T., and Hansen B.G. (2000) "Reducing Speed Variation in Diminished Visibility Conditions" - Transportation Research Record 1748: 66-71, National Academy of Sciences.
14. Hansen B. G., Martin P.T., and Perrin H.J. (2000) "SCOOT Real Time Adaptive Control in a CORSIM Environment". Transportation Research Record 1727: 27-3, National Academy of Sciences.1
15. Perrin H.J., Martin P.T. (2000) "Saturation Detection for Advanced Urban Traffic Control – No Longer a Necessity", Transporti Europi, 6 no 15 (August): 10-17.
16. Martin P.T.(1997) "Turning Movement Estimation In Real Time", Journal of Transportation Engineering, American Society of Civil Engineers, Special Edition on Automated Traffic Management Systems, 123 no. 4 (July/August): 252-260.
17. Martin P.T. (1997) "Network Theory for Real-Time Traffic Flow Inference", Journal of the Utah Academy of Sciences, Arts and Letters, ENCYCLIA.
18. Martin P.T. (1995) "Student Quizzing with Computer Projected Images", Journal of Computer Applications in Engineering Education, v3 no 4, 1995, Wiley-Interscience. pp 265-271.
19. Martin P.T. and Hockaday S. (1995) "SCOOT - an Update", Journal of the Institute of Transportation Engineers, Washington, D.C. (January): pp44-48.
20. Martin P.T. and Bell M.C.(1993) "Origin and Destination Matrices from Registration Plate Matching", Traffic Engineering and Control, Printerhall, 34 no. 3, (March): 130-134.

21. Evans R.G. and Martin P.T.(1993) "A Method for Analyzing Partial Registration Plate Data", Traffic Engineering and Control, Printerhall, 34 no 2, (February): 76-79.
22. Martin P.T. and Bell M.C.(1993) "Vehicle Tracking Through Un-Sampled Registration Plate Observation," Traffic Engineering and Control, Printerhall, 34 no 1, (January): 8-12.
23. Martin P.T.(1993) "Can Operational Research Tackle Traffic Congestion?", Operational Research Insight, 6, no.1, (January): 4-9.
24. Martin P.T. and Bell M.C.(1992) "Network Programming to Derive Turning Movements from Link Flows", Transportation Research Record 1365: 147-154, National Academy of Sciences.

Papers Accepted for Publication

25. Stevanovic, A.Z., Stevanovic, J., and Martin, P.T. (2009). "Optimizing Signal Timings from Field – VISGAOST and VISSIM-ASC/3 Software-in-the-Loop Simulation." Accepted for publication in Transportation Research Record.
26. Kergaye, C., Stevanovic, A.Z., and Martin, P.T. (2009). "Comparison of Before/After versus On/Off Adaptive Traffic Control Evaluations: Park City Case Study." Accepted for publication in Transportation Research Record.
27. Cooper J.M., Vladisavljevic I., Medeiros-Ward N., Martin P.T., Strayer D.L. (2009). "Near the Tipping Point of Traffic Stability: An Investigation of Driving While Conversing on a Cell Phone in Simulated Highway Traffic of Varying Densities" Human Factors: The Journal of Human Factors and Ergonomics Society.

Papers Under Review for Publication in Refereed Journals

28. Stevanovic, J., Stevanovic, A.Z., and Martin P.T. (2009). "Traffic Control Optimization for Multi-Modal Operations in a Large-Scale Urban Network." Under review for publication in Computer-Aided Civil and Infrastructure Engineering (CACAIIE) Journal.
29. Stevanovic, A.Z., Kergaye, C., and Martin, P.T. (2009). "Comparative Evaluation of Adaptive Traffic Control System Assessments through Field and Microsimulation." Presented at the 15th World Congress on Intelligent Transportation Systems, New York, November 16-20, 2008. Under review for publication in Journal of Intelligent Transportation Systems.

Papers in Rigorously Reviewed Conferences

1. Stevanovic A., Stevanovic J., Martin P.T., (2009) "Optimizing Signal Timings from Field-VISGAOST and VISSIM-ASC/3 Software-in-the Loop Simulation" Paper presented at the 88th TRB Annual Meeting, Transportation Research Board, Washington D.C., published in TRB Conference Proceedings CD.
2. Stevanovic A., Kergaye C., Martin P.T. (2009) "SCOOT and SCATS: A Closer Look into Their Operations" Paper presented at the 88th TRB Annual Meeting, Transportation Research Board, Washington D.C., published in TRB Conference Proceedings CD.
3. Vladislavljevic I., Cooper J., Martin P.T., Strayer D.L. (2009) "The Importance of Integrating Driving and Traffic Simulations, Illustrated through a Case Study that Examines the Impact of Cell Phone Drivers on Traffic Flow Paper" presented at the 88th TRB Annual Meeting, Transportation Research Board, Washington D.C., published in TRB Conference Proceedings CD.
4. Shepherd B., Martin P.T. (2009) "A Military Approach to Network-Focused Operator Training for Traffic Management Centers: A Case Study from Utah DOT's Traffic Operations Center, Salt Lake City" Paper presented at the 88th TRB Annual Meeting, Transportation Research Board, Washington D.C., published in TRB Conference Proceedings CD.
5. Stevanovic, A.Z., Kergaye, C., and Martin, P.T. (2009). "SCOOT and SCATS: A Closer Look into Their Operations." Paper presented at the 88th TRB Annual Meeting, Transportation Research Board, Washington D.C. published in TRB Conference Proceedings CD.
6. Stevanovic A.Z., Kergaye C., Martin P.T., (2008) "Field Evaluation Of SCATS Traffic Control In Park City, UT" 15th ITS World Congress, New York City, November 2008
7. Stevanovic, A.Z., Kergaye, C., and Martin, P.T. (2008). "A Field Evaluation of SCATS Adaptive Control in Park City, UT". Presented at the 15th World Congress on Intelligent Transportation Systems, New York, November 16-20, 2008. Published in the Journal of Intelligent Transportation Systems.
8. Vladislavljevic, I., Martin, P.T., Jovanovic, D. and Stevanovic, A.Z. (2008). "Evaluation of the Effectiveness of High Occupancy/Toll (HOT) Lanes on the I-15 in the Salt Lake City Metropolitan Region". Paper presented at 87th TRB Annual Meeting, Transportation Research Board, Washington D.C. published in TRB Conference Proceedings CD.
9. Vladislavljevic, I., Martin, P.T., Jovanovic, D., Stevanovic, A. Z. (2008) "A High-Occupancy/Toll Lane Experiment on the I-15 in the Salt Lake City Metropolitan Region: A Traffic Flow Evaluation" 85th Annual Meeting of the Transportation Research Board, Washington D.C., published in TRB Conference Proceedings CD.

10. Stevanovic A.Z., Martin P.T., (2008) "SCOOT and Coordinated Traffic Control Evaluated Through Simulation, UT" 85th Annual Meeting of the Transportation Research Board, Washington D.C., published in TRB Conference Proceedings CD.
11. Cooper, J. M., Vladislavljevic, I., Strayer, D.L., Martin, P.T. (2008) "Drivers' Lane Changing Behavior While Conversing On a Cell Phone in a Variable Density Simulated Highway Environment" 15th Annual Meeting of the Transportation Research Board, Washington D.C., published in TRB Conference Proceedings CD.
12. Martin, P.T., Vladislavljevic, I., (2008) A six-Month Traffic Flow Evaluation of a High-Occupancy/Toll Lane Experiment 2008 Transportation Research Board Freeway & Tollway Operations Conference, Fort Lauderdale, June 2008
13. Kergaye, C., Stevanovic, A.Z., Martin, P.T. (2008) "An Evaluation of SCOOT and SCATS through Microsimulation". Presented at 10th International Conference on Applications of Advanced Technologies in Transportation, Athens, Greece, May 2008.
14. Stevanovic A.Z., Martin P.T., (2006) "Assessing the Ageing of Pre-Timed Traffic Signal Control Using Synchro and Sim Traffic", Annual Meeting of the Transportation Research Board, Washington D.C., published in TRB Conference Proceedings CD.
15. Stevanovic A.Z., Martin P.T., (2006) "Evaluating the Reliability of Macroscopically Optimized Timing Plans Through Microsimulation", Annual Meeting of the Transportation Research Board, Washington D.C., published in TRB Conference Proceedings CD.
16. Vladislalijevic I., Martin P.T., (2006) "The Impact of Cell Phone Conversation While Driving on Car Following Behavior" Presented ITE District 6 Annual Meeting, Honolulu HI, June 2006.
17. Martin P.T., Stevanovic A.Z., Lahon D. (2006) "Developing a Forecasting Model for Managed Lanes Using Data from Utah's High Occupancy Vehicle (HOV) Lanes", Annual Meeting of the Transportation Research Board, Washington D.C., published in TRB Conference Proceedings CD.
18. Martin P.T., Lahon D., Stevanovic A.Z., (2005) "Traffic Impact, Safety Assessment and Public Acceptance of the HOV Lanes in Utah's Salt Lake Valley", Annual Meeting of the Transportation Research Board, Washington D.C., January 2005.
19. Perrin H.J., Peng W., Martin P.T., (2004) "Evaluating HOV Lanes in Salt Lake City, Utah" presented to the Annual Meeting of the Transportation Research Board, Washington D.C., January 2004.
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Disclosures, Patents Issued, & Software Distributed

Confidential Invention Disclosure

Inventor 1: Martin P.T.,

Inventor 2: Stevanovic A.Z.,

“Genetic Algorithm for traffic signal optimization through PTV America’s VISSIM traffic simulation tool.” December 2005

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57. Martin P.T. and Bell M.C., City Centre Parking Study, Private Consulting Contract, Carlisle City Council, March 1989.
58. Martin P.T. and G.O.R. Rowlands, Bearing Capacity Soil Investigation, Private Consulting Contract, Blaenau Gwent Borough Council, Brynmawr June 1988.
59. Martin P.T., Gwaelod-Y-Garth Traffic Survey, Private Consulting Contract, Pentyrch Community Council May 1988.
60. Martin P.T., Junction Safety Appraisal, Private Consulting Contract, Allt-yr-yn Residents Action Group, Newport March 1988.
61. Martin P.T., Factory Feasibility Site Investigation, Private Consulting Contract, Treforest, Dale Kennedy Partnership, Cardiff , Feb 1988.
62. Martin P.T., Parking & Emergency Access Investigation, Private Consulting Contract, East Glamorgan General Hospital Management Committee, Llantrisant, November 1987.
63. Martin P.T., Clay / Bitumen consolidation tests, Private Consulting Contract, Mssrs. Robertson Jones & Partners, Blackwood, March 1986.

Short Course Teaching to Industry

1. Technical Writing for DOT People, Mountain Plains Consortium and the Telecommunications Network (TLN.org), 2005/6/7
2. Scientific Methods in Transportation Research, Mountain Plains Consortium and the Telecommunications Network (TLN.org), 2006
3. Statistical Methods for Engineers, Mountain Plains Consortium and the Telecommunications Network (TLN.org), 2005/6/7
4. Professional Engineers Principles and Practices of Civil Engineering (“The PE”), Mountain Plains Consortium and the Telecommunications Network (TLN.org), February & March 2001/2/3/4/5/6/7
5. Statistical Methods for Civil Engineers, Mountain Plains Consortium and the Telecommunications Network (TLN.org), September 2005/7
6. SCOOT Training Orange County & City of Naples Florida, Orlando, FL, Dec 2006
7. Professors as Team Leaders 101, February 2003, May 2003, October 2004, Career and Organization Education, Short Course developer and Instructor, University of Utah.
8. Intelligent Transportation Systems: Management, Monitoring & Control, Federal Highway Administration TLN (Transportation Learning Network), March 1998.
9. Intelligent Transportation Systems: ITS Architecture, Federal Highway Administration TLN (Transportation Learning Network), March 1998
10. Intelligent Transportation Systems: What is ITS?, Federal Highway Administration TLN (Transportation Learning Network), February 1998
11. Advanced Traffic Control Systems, Dalian Municipal Traffic Engineering Research Institute, China, February 1998
12. Advanced Traffic Control Systems, Dalian Municipal Traffic Engineering Research Institute, China, December 1997
13. Traffic Signal System Design, Bombay Metropolitan Regional Development Authority, India, August, 1997
14. Traffic Signal System Design, Bombay Metropolitan Regional Development Authority, India, March, 1996
15. Principles of Traffic Control (Utah DOT), University of Utah, June 1995
16. Freeway Surveillance Monitoring (Federal Highway Administration), Cal Poly, September 1993
17. Transportation Systems, University of Nottingham., October 1992
18. Introduction to Highway and Traffic Engineering, University of Nottingham., September 1992
19. Environmental Effects of Highways & Traffic University of Nottingham. April 1992
20. Traffic Control in Urban Areas University of Nottingham. January 1992
21. Statistical Methods University of Nottingham. October 1991
22. Highway & Junction Geometric Design & Capacity University of Nottingham. January 1991
23. Traffic Monitoring & Management, University of Nottingham., October 1990
24. Environmental Effects of Highways & Traffic, University of Nottingham., April 1990
25. Traffic Control in Urban Areas, University of Nottingham., October 1989
26. Traffic Congestion & Control, University of Nottingham, September, 1989

National & International Service

Reviewer

- Journal of Computer-Aided Civil and Infrastructure Engineering
- Journal of Transportation Engineering, American Society of Civil Engineers, January 2003 to date
- “Text: Fundamentals of Traffic Engineering”, American Society of Civil Engineers, February 2001
- IEEE Transactions on Intelligent Transportation Systems, January 1999 to date
- National Academy of Science, Division of Civil and Mechanical Systems, Directorate of Engineering
- Transportation Research Record, Traffic Signal Systems, Traffic Flow Theory, February 1994 to date.
- Partners for Advanced Transportation Highways (California PATH), 1994

Panels

- National Highways Research Program (NCHRP) Project 03-90 Traffic Signal System Control for Congested; August 2007-date
- National Highways Research Program (NCHRP) Project 03-66A&B Traffic Signal Operations with Railroad Preemption / Advanced Detection for Critical Intersection Control State Transition Logic Using Enhanced Sensor Information; August 2002-date
- Transportation Engineering Proposal Review Panel 1998-99, National Science Foundation, Division of Civil and Mechanical Systems

National Leadership Appointments

- Host, Annual Summer Meeting, July 2002, Traffic Signal Systems Committee, Transportation Research Board
- Member, Executive Committee Mountain Plains Consortium, Utah Transportation Centers Program, Region 8, September 2001-date
- Board of Directors, TLN (Transportation Learning Network) Federal Highway Administration Region 8 Transportation telecommunication system, September 2000-date
- Member of the Traffic Signal Systems Committee, Transportation Research Board, Washington DC, 2001-2005
- University of Utah Representative to the Transportation Research Board (National Academy of Sciences) Washington DC, 1998 - date
- Member of the Organizing Committee for the 27th annual Environmental Design Research Association (EDRA) Salt Lake City Hilton, June 12-16, 1996.
- Member of the Organizing Committee for the IEEE International Symposium on Intelligent Vehicles, September 25-26, 1995, Detroit.
- Member of the Program Committee for the International Symposium on Automotive Technology & Automation, September 20-23, 1992, Florence, Italy.
- Member of the Executive Committee of the Universities Transport Studies Group U.K. 1990-1992.

- International Conference Organizer: Universities Transport Studies Group (UTSG) Annual Meeting, Nottingham, January 1991

University Service

- Member, Consolidated Hearing Committee, August 2008 to July 2014.
- Chair, Faculty Search Committee, Assistant Professor, Civil & Environmental Engineering, Spring 99, Spring 06
- Member, Search Committee, Chair Civil & Environmental Engineering, Spring 06
- Director of Graduate Studies, Department of Civil and Environmental Engineering, 2005 to 2007.
- Departmental Retention Promotion Tenure Committee, 94 to date
- Faculty Advisor, Institute of Transportation Engineers, 95 to date
- Chair, Parking feasibility initiatives for the NW corner of Campus, 2005
- Chair Parking & Public Transportation Committee 2000-2005
- University Faculty Senator, 2001-2004; 2007-date
- Member Campus Planning Committee, 2000-2002
- Author, Department of Civil & Environmental Engineering Strategic Plan, 2003
- Internal Reviewer, Graduate Program, Department of Geography, November 2002
- College Curriculum Committee 2000-to date
- College of Engineering Committee on Distance Learning, 2000-2001
- Departmental Scholarship Committee 96-99

Community Activity & Professional Activity

- American Council of Engineering Companies, Judge – Engineering Excellence Competition, Utah 2005 Award, November 2005.
- Member Salt Lake City Transportation Advisory Board, Nov 97-Aug 01; September 2007 to date
- Advisor to Bountiful City on Traffic Calming, 1999
- Member Traffic Management Technical Subcommittee, Federal Highway Administration, Salt Lake City, 1996 to date.
- Organizing Committee for the 27th annual Environmental Design Research Association (EDRA) Salt Lake City Hilton, June 12-16, 1996.

- Organizing Committee for the IEEE International Symposium on Intelligent Vehicles, September 25-26, 1995, Detroit.
- Utah Council Office of International Visitors, U.S. Intelligent Transportation Systems briefing to a delegation from the Polish parliament
- Transit International Corporation, Member of the Board of Technical Advisors
- Salt Lake County Council of Governments, Invited Technical Expert, Mass Transit hearings, September 1994
- International Student Exchange Program. Negotiated agreement between Cal Poly and the University of Nottingham for a 3 year program of "cash free" exchanges of Junior and graduate students, commenced September 1993
- International Conference Organizer: Universities Transport Studies Group (UTSG) Annual Meeting, Nottingham, UK January 1991

Research Supervision at the University of Utah (1994 – present)

Graduate students in progress (9 chair)

Ivana Vladislavljevic –PhD enrolled August 2006 (coursework complete)

Jelka Stevanovic - PhD enrolled August 2007

Cameron Kergaye - PhD (coursework complete, qualifying exam passed, proposal accepted)(part-time, unfunded)

Mohammad Butt - PhD (coursework complete) (part-time, unfunded)

Piyali Chaudhuri – PhD enrolled January 2008

Milan Zlatkovic - MS Student, Expected to graduate in Summer 2009

Bhagavan Raju Nadimpalli - MS Student, Expected to graduate in Spring 2009

James Mulandi - PhD (coursework complete) (part-time, unfunded)

PhD's Graduated (2 chair)

Aleksandar Stevanovic, chair supervisory committee for the degree of PhD – 2005

Yi-Hwa Wu, (Geography) member supervisory committee for the degree of PhD - 2003

H. Joseph Perrin, chair supervisory committee for the degree of PhD - 1999

Wayne Cottrell, member supervisory committee for the degree of PhD – 1997

Ahmed Nobir, Geography

Upchurch, Geography

Master of Science Graduated (15 chair)

Benjamin Shepherd – MS (thesis) - 2008

Dilya Yusufzyanov 2008

Dejan Jovanovic – MS (thesis) - 2008

Venkatesh Jadhav –chair supervisory committee for the degree of MS (thesis) - 2007

Jelka Stevanovic – chair supervisory committee for the degree of MS (thesis) - 2007

Kyle Cook –chair supervisory committee for the degree of MS (fastrack) -2006

Amar Pillai – chair supervisory committee for the degree of MS (coursework) - 2006
Ivana Vladislavljevic – chair supervisory committee for the degree of MS (thesis) - 2006
Gayathri Dharmvarm, chair supervisory committee for the degree of MS (thesis) - 2006
Vikram- Kalyani, chair supervisory committee for degree of MS (thesis) - 2005
Dhruvajyoti Lahon, chair supervisory committee for the degree of MS (thesis) - 2005
Rodrigo Disegni, chair supervisory committee for the degree of MS (thesis) - 2003
YuQi Feng, chair supervisory committee for degree MS (thesis) - 2003
Peng Wu, chair supervisory committee for degree of MS (thesis) - 2003
Bhargava Rama Chilukuri, chair supervisory committee for the degree of MS (thesis) - 2003
Chintan Jhaveri, chair supervisory committee for the degree of MS (thesis) - 2002
Aleksandar Stevanovic, chair supervisory committee for the degree of MS (thesis) - 2002
Blake G. Hansen, chair supervisory committee for the degree of MS (thesis) - 2000
Dawn Geugan, chair supervisory committee for the degree of MS (thesis) - 1998
Master of Engineering Graduated (9 chair)
Rajesh Dwivedi, chair supervisory committee for the degree of ME 2006
Naree Kim, chair supervisory committee for the degree of ME (with project) 2003
Stephen Bryan, chair supervisory committee for the degree of ME - 2003
Robert Lambert, chair supervisory committee for the degree of ME (with project) – 2003
Girish Koli, chair supervisory committee for degree ME - 2003
Mark Bunnell, chair supervisory committee for the degree of ME (with project)- 2003
Robert Stewart, chair supervisory committee for the degree of ME - 2003
Andrea Pullos, chair supervisory committee for the degree of ME (with project)– 2000
James Webb, chair supervisory committee for the degree of ME (with project)- 1999
Rick L. Campagna, member supervisory committee for the degree of ME - 1998
Honam Lee, member supervisory committee for the degree of ME - 1996

External Research Supervision at other Universities

Prabhat Shrivastava, India Institute of Technology (IIT) Bombay, thesis examiner, September 2000 for the degree of PhD

Awards and Honors

Best Technical Paper Award “Traffic Adaptive Signal Control Systems: Myth and Reality”, 36th Annual Meeting of the Inter-Mountain and Colorado-Wyoming Sections Chapter of the Institute of Transportation Engineers, May 17-18, 1996 Jackson Hole Wyoming.

Miller Prize, awarded by the Council of the Institution of Civil Engineers for the paper “Public Consultation or Confrontation” June 13, 1979

Duke of Edinburgh Gold Award, presented by His Royal Highness the Duke of Edinburgh, Buckingham Palace, June, 1970