
CURRICULUM VITAE



Sarawut Jansuwan, Ph.D.

ดร.สราวุธ จันทร์สุวรรณ

Ph.D. in Civil and Environmental Engineering

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Expertise: Urban and Regional Transportation Planning, Freight and Logistics Planning, Traffic Simulation, Decision Support System

Education

Ph.D. (Transportation Engineering)

Utah State University (USU), Utah, USA.

2013

Dissertation topic: A quantitative framework for assessing vulnerability and redundancy of freight transportation networks.

M.Eng. (Civil Engineering)

Chulalongkorn University (CU), Bangkok, Thailand

2002

Thesis topic: Assessment of area traffic control system in Bangkok by microscopic simulation model.

B.Eng. (Civil Engineering)

Chiang Mai University (CMU), Chiang Mai, Thailand

1999

Senior project topic: Origin-Destination data collection for campus public transit planning

Research & Academic Experience

School of Applied Statistics, National Institute of Development Administration (NIDA)

- Adjunct Lecturer in Logistics and Supply Chain Management Course (1/2014)

Faculty of Logistics, Burapha University

- Adjunct Lecturer in Freight Transport Planning and Management Course (Semester 2/2013, 1/2014)
- Adjunct Lecturer in Information System for Logistics Course (Semester 2/2013)
- Adjunct Lecturer in Quantitative Analysis for Logistics and Supply Chain Management Course (Semester 2/2013)

School of Logistics & Supply Chain, Naresuan University, Thailand

- Invited Lecturer in Logistics Quantitative Analysis Course (Semester 2/2013)

Utah State University

- Research Assistant under projects:
 - A two-stage approach for estimating a statewide truck trip table funded by Mountain Plain Consortium (MPC), FY 2012.
 - Automated electric transportation transforming America's transportation future funded by Department of Energy, (Aug 2011- Dec 2012)
 - Surveying the transportation needs of low-mobility individuals in Cache County, Utah funded by Utah Transportation Center (Aug 2010- Aug 2011).
 - Forecasting network traffic for small communities in Utah, funded by the *Utah Transportation Center* (UTC) at USU, (Sept. 2009 to Aug. 2010).
 - Development of a decision support tool for assessing vulnerability of transportation networks, funded by the *Utah Transportation Center* (UTC) at USU and the Utah Department of Transportation (UDOT), (Nov. 2007 to Dec. 2010).
 - Visual PFE Software enhancements for planning applications in small-sized communities, funded by the *California Partners for Advanced Transit and Highways (PATH)*, (Jun 2008 to Dec 2010).
 - Development of a Path Flow Estimator for inferring steady-state and time-dependent origin-destination trip matrices", funded by the *California Partners for Advanced Transit and Highways (PATH)*, (FY 2007-FY 2008).
 - Transportation network vulnerability study funded by *the Community/University Research Initiative* (CURI) at USU, (Jul 2006- Aug 2007)
- Teaching Assistant
 - Transportation Data/Safety Analysis, Spring 2012
 - Traffic Operation Analysis (Lab instructor for PARAMICS), Fall 2011
 - Urban and Regional Transportation (Lab instructor for Cube by Citilabs), Fall 2008, 2009, 2010, 2012
 - Traffic Engineering (Lab instructor for Synchro and SimTraffic), Fall 2007, 2008
 - Transportation Network Analysis, Fall 2007

Chulalongkorn University

- Research Assistant under projects:
 - Assessment of the Area Traffic Control operated by SCOOT (Split Cycle Offset Optimisation Technique) in Bangkok Metropolitan Area, 2001-2002
- Teaching Assistant
 - Traffic Data Collection and Public Transport Planning, (Office of Transport and Traffic Policy and Planning, Thailand), 2001

Professional Experience

Research Fellow

Faculty of Logistics, Burapha University

December 2013-Present

- Assistant Project Investigator on Disaster Management Plan for Department of Highway, Thailand (โครงการจัดทำแผนพัฒนาทางหลวงเพื่อรองรับผลกระทบที่เกิดจากภัยพิบัติ) (Budget 20 Million THB.)

Project Engineer, Sumitomo Electric (Thailand), Ltd.

July, 2002-July, 2005

- Responsible for Intelligent Transportation System (ITS) projects in Thailand
- Responsible for Royal Thai Traffic Police Image Processing Camera Procurement (subcontractor role) (Budget approximately 80 Million THB.)
- Engineering team for traffic control projects in city of Phuket, Thailand (Budget 10.7 Million THB.)

Training

- Area Traffic Control Training, Sumitomo Electric Industries, Japan October, 2002
- PARAMICS Simulation Software Certified Course by University of South Australia and Kohn Kean University June, 2001

Professional Involvement

- Associate Engineer and Member of Council of Engineer, Thailand May, 2000-present
- Collaborative Institutional Initiative Training (CITI) Certified July 2010- present
- Student Member of American Society of Civil Engineering (ASCE) March, 2013-present

International Experience

- Exchange researcher to University of Seoul, Korea 2007
- Participate the Environmental Protection Program organized by of AEON Group 1% Club and Ministry of Education, Thailand in Japan 1994, 2004 and 2005
- Exchange student to France under the American Field Service (AFS) program 1995

Award

- Best paper award in the 19th National Conference on Civil Engineering (NCCE), Kohn Kean Thailand 2014
- Best paper award in Thai Value Chain Management and Logistics (VCML), Bangkok Thailand 2014

Peer-reviewed Journal Publications

Jansuwan, S., Christensen, K., Chen, A. (2013). Assessing the transportation needs of low-mobility individuals: case study of small urban community in Utah. *Journal of Urban Planning and Development (ASCE)* 139(2), 104-114.

Jansuwan, S., Chen, A., Ryu, S. (2012). An alternative planning tool for a small metropolitan planning organization in Utah. *Transportation Research Record: Journal of the Transportation Research Board*, 2307, 68-79.

Christensen, K., **Jansuwan, S.**, Chen, A. (Accepted) Social network characteristics that influence individuals with disabilities' transportation choices. *Disability Studies Quarterly*.

Sawettham, A., Indra-Payoong, N., **Jansuwan, S.**, Raothanachonkul, P., Subprasom, K. (In Press) The evaluation of spatial intra-zonal accessibility impacts. *Journal of Remote Sensing and GIS Association of Thailand*. (in Thai-Journal Citation Index: TCI database).

Tor. Chaisuwan, A., Indra-Payoong, **Jansuwan, S.** (2014) Running head: The delay cost of truck and freight pricing practices. *Suranaree Journal of Science and Technology*. (in Thai-Journal Citation Index: TCI database).

Jansuwan, S., Chen, A., Xu, X., Yang, C. (Submitted) Measuring redundancy of freight transportation networks. *Transportation Research Part E*.

Jansuwan, S., Chen, A., (Submitted) Decision support system tool for assessing vulnerability of freight transportation networks. *Journal of Decision Support Systems*.

Jansuwan, S., Chen, A., (Submitted) Link importance in degradable transportation network with consideration of congestion and travellers's perception errors. *Transportmetrica A: Transport Science*.

Xu, X., Chen, A., **Jansuwan, S.**, Heaslip, K., Yang, C. (2015) Modeling Transportation Network Redundancy. *Transportation Research Procedia of the 21st International Symposium on Transportation and Traffic Theory*.

Peer-reviewed Conference Papers & Presentations

Vanitchakornpong, K., Zhou, Z., Chen, A., Indra-Payoong, N., **Jansuwan, J.** (2015) A time-dependent alpha-reliable mean-excess pathfinding model in stochastic networks. *Proceeding of the 6th International Symposium on Transportation Network Reliability*.

Bungbua, P., Raothanachonkul, P., Indra-Payoong, N., **Jansuwan, S.** (2014) Agro-industrial Supply Chain Policy for Sustainable Cities: Cassava Production. *Proceeding of Thai Value Chain Management and Logistics: Thai VCML 2014* (in Thai) (Received Best Paper Award)

among 110 papers).

Jansuwan, S., Chen, A., Subprasom, K., Indra-Payoong, N. (2014) Assessing redundancy of freight transportation network for pre-disaster highway planning. *Proceeding of the 19th National Convention on Civil Engineering*, Kohn Kean, Thailand, May 2014. (Best Paper Award in Transportation Engineering)

Jansuwan, S., Chen, A., Ryu, S. (2014) An alternative approach for estimating a statewide truck origin-destination trip table: a case study in Utah. *Proceeding of the Transportation Research Board 93rd Annual Meeting*, Washington DC., January 2014.

Tor. Chaisuwan, A., Indra-Payoong, N., **Jansuwan, S.** (2014) An empirical study of truck payload allocation. *Proceeding of the 5th International Conference on Logistics and Transportation (ICLT)*, Kyoto, Japan November 2013.

Jansuwan, S., Chen, A., Xu, X., Yang, C. (2013) Assessing redundancy of freight transportation networks. *Proceeding of the Transportation Research Board 92nd Annual Meeting*, Washington DC., January 2013.

Jansuwan, S., Ryu, S., Freckleton, D., Chen, A., Heaslip, K. (2013) Evaluation framework of automated electric transportation system. *Proceeding of the Transportation Research Board 92nd Annual Meeting*, Washington DC., January 2013.

Jansuwan, S., Christensen, K., Chen, A. (2013) Assessing transportation needs of low-mobility individuals in Cache County, Utah. *Proceeding of the Transportation Research Board 92nd Annual Meeting*, Washington DC., January 2013.

Jansuwan, S., Chen, A., Xu, X., Yang, C. (2013) A two-dimensional approach for assessing redundancy of freight transportation networks: a case study of Utah. *Proceeding of the 5th International Symposium on Transportation Network Reliability (INSTR)*, Hong Kong, December 2012.

Jansuwan, S., Chen, A. (2013) Estimating a statewide truck origin-destination trip table: a case study in Utah. *Proceedings of the 18th Hong Kong Society of Transportation Studies Conference*, Hong Kong, December 2012.

Xu, X., Chen, A., **Jansuwan, S.,** Heaslip, K. (2012) Road network redundancy measures: route diversity and network spare capacity. *Proceeding of the Transportation Research Board 91st Annual Meeting*, Washington DC., January 2012.

Jansuwan, S., Chen, A., Ryu, S. (2012) Alternative planning tool for small metropolitan planning organization in Utah. *Proceeding of the Transportation Research Board 91st Annual Meeting*, Washington DC., January 2012.

Jansuwan, S., Chen, A., Wonginta, T., Pintong, K. (2011) Development of a decision support tool for assessing vulnerability of transportation network. *Presented in the MapWindow GIS Conference in San Diego*, June 2011.

Jansuwan, S., Wonginta, T. (2008) Freight flow analysis and data management in geographical information system (GIS): GeoFreight. *Proceedings of the 13th National Convention on Civil Engineering*, 14-16 May 2008, Pattaya, Thailand.

Jansuwan, S., Chootinan, P., Chen, A. (2007) Visual PFE: A convex programming approach for estimating O-D trip tables from traffic counts. *Proceedings of the 12th National Convention on Civil Engineering, Phitsanulok, Thailand 2-4 May 2007,.*

Jansuwan, S., Chootinan, P., Chen, A. (2006) A constrained generalized least squares technique for origin-destination trip table estimation: An application in Paramics. *Proceedings of the 11th Hong Kong Society of Transportation Studies Conference: Sustainable Transportation*, Hong Kong, P.R. China, edited by S.C. Wong, T.D. Hau, J.J. Wang, K.W. Chau, and H.W. Ho, pp. 249-258.

Jansuwan, S., Hajime, S, Chujarakul, K. (2004) RONDO (Rolling Horizon Dynamic Optimization of Signal Control): A Case Study of Phuket Pilot Project. *Proceeding of the 9th National Convention on Civil Engineering Cha-Am, Thailand.*

Jansuwan, S., Narupiti, S. (2004) Assessment of Area Traffic Control System in Bangkok by the Microscopic Simulation Model. *Proceeding of the 6th Eastern Asia Society for Transportation Studies (EASTS)*, Bangkok, Thailand.

Satiennam, T., Fukuda, A., **Jansuwan, S.** and Muroi, T (2004) A New Approach of Public Transportation Priority System for Narrow Shared-Lane Arterial. *Proceeding of the 6th Eastern Asia Society for Transportation Studies (EASTS)*, Bangkok, Thailand.

Jansuwan, S., Narupiti, S. (2003) Experience with Paramics micro-simulation software. *Proceeding of the Fourth Regional Symposium on Infrastructure Development in Civil Engineering, Thailand (organized by Kasetsart University).*

Working Papers & Reports

Jansuwan, S., Chen, A., Wonginta, T. (2010) *Development of a Decision Support Tool for Assessing Vulnerability of Transportation Networks*. Utah Department of Transportation, Final Report.

Zhang, H.M., Nie, Y., Shen W., Lee, M.S., **Jansuwan, S.,** Chootinan, P. Pravinvongvuth S., Chen, A., Recker, W. (2008) *Development of a Path Flow Estimator for Inferring Steady-State and Time-Dependent Origin-Destination Trip Matrices*. UCB- ITS-PRR-2008-10. California PATH Research Project (Task Order 5502) Final Report.

Jansuwan, S., Chen, A. (2007) A decision support tool for assessing transportation network vulnerability. Community/University Research Initiative (CURI) Research Report.

Narupiti, S., **Jansuwan, S.,** Taylor, W.C., (2002) Assessment of Area Traffic Control System in Bangkok (Before/After Assessment). Bangkok Metropolitan Administration

Working Paper 2002.

Language & Software

- English (Very Good), French (Fair)
- Computer programming: Visual Fortran, VB.NET
- Statistic and Mathematic software: SPSS, MATLAB, LINGO, CPLEX
- Transportation Software: CUBE, TransCAD, PARAMICS, SYNCRO
- MapWindow GIS (plug-in developer)
- Software development:
 - **Visual Path Flow Estimator (VPFE)** (contributor)
A GIS-based software tool for Origin-Destination (O-D) matrix estimation developed in collaboration with University of California Irvine and University of California Davis.
 - **Freight Chokepoint Analysis Tool (FCAT)** (developer)
A GIS-based software tool for analyze the impact of freight chokepoint disruption in the transportation network.

Peer-review Activities and Public Involvement

- Reviewer of Transportation Research Board (TRB) Annual Meeting
- Reviewer of Journal of Transport Policy
- Reviewer of Transportmetrica A: Transport Science
- Journal reviewer for International Journal of Computer Systems Sciences and Engineer
- Member of MapWindow Open Source GIS Team (<http://mapwindow.org/>)
- Member of Engineering Institute of Thailand (EIT)
- Member of American Society of Civil Engineer (ASCE)