

Curriculum Vitae of Daisuke FUKUDA

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NAME: Daisuke FUKUDA

PERSONAL: Born in October 1, 1974 in Nagasaki, Japan. Male.

NATIONALITY: Japan

CURRENT POSITION: Associate Professor, Department of Civil Engineering, Tokyo Institute of Technology

OFFICE ADDRESS: Department of Civil Engineering, Tokyo Institute of Technology
O-okayama 2-12-1- M1-11, Meguro-ku, 152-8552 Tokyo, Japan

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EDUCATION: 2004 Ph.D. in Engineering. The University of Tokyo
(Thesis Title: Microeconomic Analysis of the Effects of Social Interactions on Travel Behavior)
1999 MSc, Civil Engineering. The University of Tokyo
1997 B.S., Civil Engineering. The University of Tokyo

RESEARCH AREAS: Transportation Planning
Travel Behavior Analysis
Discrete Choice Analysis
Transportation Economics
Social and Environmental Marketing

ACADEMIC APPOINTMENTS:

- 2005-present Associate Professor, Transport Studies Unit, Department of Civil Engineering, Tokyo Institute of Technology.
- 2011 Guest Researcher, Center for Transport Studies, Imperial College London.
- 2007-2008 Guest Researcher, Danish Transport Research Institute and Technical University of Denmark.
- 2004-2005 Assistant Professor, Department of Civil Engineering, Tokyo Institute of Technology.
- 2001-2004 Research Associate, Department of Civil Engineering, Tokyo Institute of Technology.

1999-2001 Research Assistant, Department of Civil Engineering,
The University of Tokyo.

RESEARCH FUNDS:

2011-2012 Ministry of Education, Culture, Sports, Science and Technology
Grant-in-Aid for Scientific Research [Principal researcher] (4,030,000 JPY)

2010-2012 Japan Institute of Construction Engineering [Principal researcher]
(2,000,000 JPY)

2010-2011 Express Highway Research Foundation in Japan [Principal researcher]
(950,000 JPY)

2010 Japan Society for Promotion of Science [Principal researcher] (Approx.
250,000 JPY)

2008-2009 Ministry of Education, Culture, Sports, Science and Technology
Grant-in-Aid for Scientific Research [Principal researcher] (3,850,000 JPY)

2008 Faculty of Engineering, Tokyo Institute of Technology [Principal
researcher] (1,500,000 JPY)

2008 Japan Society for Promotion of Science [Principal researcher] (Approx.
400,000 JPY)

2007-2008 Kajima Research Foundation [Principal researcher] (3,700,000 JPY)

2006-2007 Ministry of Education, Culture, Sports, Science and Technology
Grant-in-Aid for Scientific Research [Principal researcher] (2,400,000 JPY)

2006-2007 Ministry of Education, Culture, Sports, Science and Technology
Grant-in-Aid for Scientific Research [Principal researcher: Prof. Dr.
Tetsuo Yai] (3,500,000 JPY)

2006-2007 Mizuho Financial Group Foundation [Principal researcher] (1,200,000
JPY)

2006-2007 Ando Memorial Foundation [Principal researcher] (1,000,000 JPY)

2004-2005 Ministry of Education, Culture, Sports, Science and Technology
Grant-in-Aid for Scientific Research [Principal researcher] (2,200,000 JPY)

2004 Japan Society of Civil Engineers Research Fund [Principal researcher]
(Approx. 200,000 JPY)

2003-2004 Ministry of Education, Culture, Sports, Science and Technology
Grant-in-Aid for Scientific Research [Principal researcher: Prof. Dr.
Tetsuo Yai] (2,600,000 JPY)

2002-2003 Ministry of Education, Culture, Sports, Science and Technology
Grant-in-Aid for Scientific Research
[Principal researcher: Prof. Dr. Taka Ueda] (3,800,000 JPY)

2002-2003 Ministry of Education, Culture, Sports, Science and Technology
Grant-in-Aid for Scientific Research [Principal researcher] (1,800,000 JPY)

TEACHING EXPERIENCES:

2011- Transportation Economics (Graduate)

2006-2010 Advanced Transportation Planning and Traffic Engineering (Graduate)

2005- Advanced Mathematical Methods for Infrastructure and Transportation

	Planning (Graduate)
2006-	Basic Economics for Civil Engineers (Undergraduate)
2005-	Mathematical Methods for Transportation Data Analysis (Undergraduate)
2001-	Planning and Design of Infrastructure Facilities (Undergraduate)

ASSOCIATIONS:

Applied Regional Science Conference (ARSC)
 Association for European Transport (AET)
 Association for Planning and Transportation Studies
 Eastern Asia Society for Transportation Studies (EASTS)
 Japan Society of Civil Engineers (JSCE)
 Japan Society of Traffic Engineers (JSTE)
 The City Planning Institute of Japan (CPIJ)
 The Japan Research Center for Transport Policy
 World Conference on Transport Research Society (WCTRS)

EDITORIAL SERVICES:

2006-2008 Journal of Japan Society of Civil Engineers, Review of Infrastructure Planning and Management

OTHER ACADEMIC ACTIVITIES:

Member of Secretariat Office, Eastern Asia Society for Transportation Studies

ARTICLES IN REFEREED JOURNALS, BOOK CHAPTERS AND PROCEEDINGS:

1. “Link-based Route Choice Considering Risk Aversion, Disappointment and Regret,” (with A. Fonzone, J.-D. Schmöcker and J. Ma) *Transportation Research Record* (in press).
2. “Process and Context in Choice Models,” (with M. Ben-Akiva, A. de Palma, D. McFadden, M. Abou-Zeid, P.A. Chiappori, M. de Lapparent, S.N. Durlauf, M. Fosgerau, S. Hess, M. Manski, A. Pakes, N. Picard, J. Walker), *Marketing Letters* (in press).
3. “Valuing Travel Time Variability: Characteristics of the Travel Time Distribution on an Urban Road,” (with M. Fosgerau), *Transportation Research Part C: Emerging Technologies* 24 (2012): 83–101.
4. “Automated Pedestrian Data Collection for the Estimation of Discrete-Choice-Based Pedestrian Behavior Model,” (with H. Yaginuma, K. Yamada and N. Mastuyama), *Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management)* 67[5] (2011): I_787–I_800 [in Japanese].
5. “An Examination on the Effects of Communication Measures against Large-Scale Problems of Illegal Bicycle Parking: A Case Study on Akabane Station, East Japan Railway Company,” (with T. Hatori, S. Mikiya and S. Fujii), *Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management)* 67[5] (2011): I_967–I_977 [in Japanese].
6. “Analysis of the Impacts of ETC (Electronic Toll Collection) Penetration with an Empirical Focus on Toll Elasticities of Highway Travel Demand,” (with R. Ishii), *Proceedings of the Annual Conference of Japan Society of Traffic Engineers* 31 (2011): 295–298 [in Japanese].

7. “Evaluating Hyperpath Routing with GPS Probe Data,” (with J. Ma), *Proceedings of the 16th Hong Kong Society for Transportation Studies (HKSTS) Conference* (2011): 123–130.
8. “Mobile Phones and Telecommuting: Effects on Trips and Tours of Londoners,” (with G.U. Padayhag and J.-D. Schmöcker), *Journal of Transport and Land Use* 4[3] (2011): 23–41.
9. “Do ICT Use and Time Planning Affect Travel Behavior? – An Empirical Investigation in Metro Manila, Philippines,” (with G.U. Padayhag), *Journal of the Eastern Asia Society for Transportation Studies* 9 (2011): 526–540.
10. “Optimizing Frequency of Bus Services in Mixed-Traffic Urban Streets,” (with K. Monyrath and T. Yai), *Asian Transport Studies* 1[4] (2011): 352–367.
11. “Development of Discrete-Choice-Based Pedestrian Behavior Model Considering the Visibility of Obstacles,” (with H. Yaginuma and N. Matsuyama), *Proceedings of the Annual Conference of Japan Society of Traffic Engineers* 30 (2010): 337–341 [in Japanese].
12. “A Large Scale Application of a Hyperpath-Based Railway Assignment Model Considering Congestion Effects to Tokyo Metropolitan Area,” (with H. Yaginuma and J.-D. Schmöcker) *Proceedings of the 15th Hong Kong Society for Transportation Studies (HKSTS) Conference* (2010): 495–502.
13. “Semiparametric Specification of the Utility Function in a Travel Mode Choice Model,” (with T. Yai), *Transportation* 37[2] (2010): 221–238.
14. “Evaluation of Passenger Flow Lines in International Airport Terminals,” (with S. Matsuo and T. Hatori), *Selected Proceedings of the 12th World Conference on Transport Research* (2010): 275–280.
15. “Valuation of Travel Time Variability: Research Perspectives of Behavioral Modeling Approaches and Issues for Applying to Cost-Benefit Analysis,” *Infrastructure Planning Review of the Japan Society of Civil Engineers* 27[3] (2010): 437–448 [in Japanese].
16. “An Examination on the Aggregate Effects of Measures of Persuasive Communication for Reducing the Illegal Bicycle Parking: A Case Study on Ookayama Campus, Tokyo Institute of Technology,” (with S. Mikiya, T. Hatori and S. Fujii), *Infrastructure Planning Review of the Japan Society of Civil Engineers* 27[4] (2010): 757–765 [in Japanese].
17. “A Fast Algorithm for Computing Least-Squares Cross-Validations for Nonparametric Conditional Kernel Density Functions,” (with T. Ichimura), *Computational Statistics and Data Analysis* 54[12] (2010): 3404–3410.
18. “Households’ Multiple Vehicle Ownership and Their Car Usage - An Analysis with the Nationwide Interview Survey in Japan,” (with M. Kobayashi and T. Hyodo), *Proceedings of the 7th Triennial Symposium on Transportation Analysis* (2010): 283–290.
19. “Households’ Multiple Vehicle Ownership and their Car Usage: An Analysis with the Road Traffic Census Data,” (with M. Kobayashi, T. Hyodo and T. Tanaka), *Infrastructure Planning Review of the Japan Society of Civil Engineers* 26 (2009): 595–562 [in Japanese].
20. “Effects of Socialization on Activity-Travel Behavior in Developing Countries: A Case Study of University Students in Metro Manila,” (with G.U. Padayhag), *Journal of the Eastern Asia Society for Transportation Studies* 8 (2010): 361–373.

21. “Exploring the Influence of Social Factors to Travel: A Perspective of University Workers in Metro Manila, the Philippines,” (with G.U. Padayhag), *Proceedings of the Eastern Asia Society for Transportation Studies* 7 (2009): 114–127.
22. “Fundamental Study of Abstracting Citizens’ Interest toward Infrastructure Project by Using Interrogative Sentences of the Open-Ended Text Data,” (with M. Niwata and T. Yai), *Infrastructure Planning Review of the Japan Society of Civil Engineers* 24[1] (2007): 131–140 [in Japanese].
23. “Fundamental Study of Intra-Household Activity Time Allocation Model for Elderly Couples with Time and Budget Constraints,” (with T. Matsumura and T. Yai), *Infrastructure Planning Review of the Japan Society of Civil Engineers* 24[3] (2007): 557–566 [in Japanese].
24. “Stated Preference Analysis of Air Travelers’ Multiple-airport Choice Behavior in Tokyo Metropolitan Area,” (with P. Udayasen and T. Yai), *Journal of the Eastern Asia Society for Transportation Studies* 7 (2007): 3028–3043.
25. “Incorporating Differences in Marginal Utilities of Time across Activities in a Time Allocation Model,” (with K.P. Nepal and T. Yai), *Journal of the Eastern Asia Society for Transportation Studies* 7 (2007): 499–514.
26. “Analyzing Inter-regional Travel Mode Choice Behavior with Multi Nested Generalized Extreme Value Model,” (with X.Y. Zhuang and T. Yai), *Journal of the Eastern Asia Society for Transportation Studies* 7 (2007): 686–699.
27. “Incorporating Aggregate Behavior in an Individual’s Discrete Choice: An Application to Analyzing Illegal Bicycle Parking Behavior,” (with S. Morichi), *Transportation Research Part A: Policy and Practice* 41 (2007): 313–325.
28. “An Attitudinal Analysis of Citizens’ Credibility Gap for Travel Demand Forecasting,” (with T. Yai and K. Nehashi), *Journal of Japan Society of Civil Engineers, Ser. D (Infrastructure Planning and Management)* 62[1] (2006): 131–144 [in Japanese].
29. “Capacity Analysis of the Degraded Road Network after Earthquake using Traffic Microsimulation,” (with H. Torii and T. Yai), *Proceedings of the Annual Conference of Japan Society of Traffic Engineers* 26 (2006): 777–779 [in Japanese].
30. “Effects of Subjective Evaluation for Weekday Time Use onto Time Allocation and Value of Activity Time on Weekends,” (with K. Watanabe, K.P. Nepal and T. Yai), *Infrastructure Planning Review of the Japan Society of Civil Engineers* 22[3] (2005): 421–429 [in Japanese].
31. “Microeconomic Models of Intra-household Activity Time Allocations,” (with K.P. Nepal and T. Yai), *Journal of the Eastern Asia Society for Transportation Studies* 6 (2005): 1637–1650.
32. “Incorporating Latent Constructs in Time Allocation Modelling: Application to Value of Activity Time Estimation,” (with K.P. Nepal and T. Yai), in *Progress in Activity-Based Analysis* (H.J.P. Timmermans, ed.), Amsterdam: Pergamon (2005): 285–308.
33. “Analysis of Delay Caused by Midblock Jeepney Stops Using Simulation,” (with H.S. Palmiano, S. Ueda and T. Yai), *Transportation Research Record* 1884 (2004): 65–74.
34. “Use of Stated Choice Analysis to Determine ETC In-Vehicle Transmitter Purchasing Behavior,”

- (with N. Opachavalit and T. Yai), *Journal of the Japan Society of Civil Engineers* 772 (2004): 227–238.
35. “Traffic-Related Air Environmental Evaluation System for Wide-Area Network Using Microscopic Simulation,” (with Y. Shirahama, T. Yai and M. Kanda), *Journal of the Japan Society of Civil Engineers* 772 (2004): 115–130 [in Japanese].
 36. “Modelling Travel Behavior and Microeconomic Analysis in the Presence of Social Interactions,” (with H. Ueno and S. Morichi), *Journal of the Japan Society of Civil Engineers* 765 (2004): 49–64 [in Japanese].
 37. “Economic Effects by Shortening Project Periods of Public Works,” (with N. Tada, S. Morichi and M. Tsutsumi), *Journal of the Japan Society of Civil Engineers* 765 (2004): 91–103 [in Japanese].
 38. “A Diffusion Model of ETC In-Vehicle Transmitters Incorporating the Interdependence among Road Users,” (with T. Watanabe and T. Yai), *Infrastructure Planning Review of the Japan Society of Civil Engineers* 21[2] (2004): 463–472 [in Japanese].
 39. “Analysis of Travel Time Saving Benefit by Understanding Individual Needs and Value of Activity Time: Case Study of Tokyo and Jakarta,” (with I. Prasetyo, H. Yoshino and T. Yai) *Transportation Research Record* 1854 (2003): 12–21.
 40. “Development of a Simulation System for Jeepney Stop Vicinity Located in Front of a Shopping Center,” (with H.S. Palmiano, S. Ueda and T. Yai), *Journal of the Eastern Asia Society for Transportation Studies* 5 (2003): 163-178.
 41. “Estimating Value of Activity Time Based on Discretionary Activities on Weekends,” (with H. Yoshino, T. Yai and I. Prasetyo), *Journal of the Japan Society of Civil Engineers* 737 (2003): 211–221 [in Japanese].
 42. “Time Allocation Modeling using Combined Utility Maximization and Activity Choice Approach for Weekend Travel in Tokyo,” (with I. Prasetyo, H. Yoshino and T. Yai), in *New Development in Psychometrics* (H. Yanai, A. Okada, K. Shigemasa, Y. Kano. and J. J. Meulman, eds.), Tokyo: Springer-Tokyo (2003): 561–568.
 43. “Comparative Analysis on Cut-off Process of Alternatives: An Application to Travel Mode Choice,” (with S. Morichi), *Infrastructure Planning Review of the Japan Society of Civil Engineers* 19[3] (2002): 375–381 [in Japanese].
 44. “Recreational Demand Model as a Mixture of Interrelated Travel Behaviors,” (with S. Morichi), *Journal of the Eastern Asia Society for Transportation Studies* 4 (2001): 47–62.
 45. “Recreational Travel Behavior Analysis Focusing on Interdependence of Multidimensional Choices,” (with S. Morichi), *Infrastructure Planning Review of the Japan Society of Civil Engineers* 18[3] (2001): 553–561 [in Japanese].
 46. “Review on the Arrangement of Alternatives in Discrete Choice Models and Comparative Studies in the Recreational Destination Choice Behavior,” (with S. Morichi) *Journal of the Eastern Asia Society for Transportation Studies* 3 (1999): 229–243.

JOURNAL REFERRING EXPERIENCES:

Journal of the Japan Society of Civil Engineers
Infrastructure Planning Review of the Japan Society of Civil Engineers
The Japanese Journal of Behaviormetrics
Journal of the City Planning Institute of Japan
Journal of the Eastern Asia Society for Transportation Studies
IEEE Intelligent Transportation Systems
Transportation
Journal of Advanced Transportation
Transportation Research Part A: Policy and Practice
Transportmetrica
Journal of Production Economics

AWARDS:

Best Thesis Award for the Memory of Prof. Kometani and Prof. Sasaki,
Institute of Systems Science Research, 2006.
Tokyo Tech Young Investigator Engineering Award, Faculty of
Engineering, Tokyo Institute of Technology, 2008.