

Junghwa Jane KIM

Ph.D. Professor



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Junghwa Kim is an Associate professor at Kyonggi University and worked as an associate research fellow at the Korea Research Institute of Human Settlement (KRIHS) in Korea. She completed her Ph.D. in urban management at Kyoto University in 2013.

Her current research interests include planning for smart mobility, as well as social and psychological approaches to improving the effectiveness of transport systems.

Junghwa specializes in measuring the service quality of public transport systems from a psychological perspective, exploring the correlation between travelers' psychological aspects and their travel behavior.

RESEARCH INTERESTS

TRANSPORTATION PLANNING, Travel Behavior Analysis, Travel Demand Forecasting, Future Mobility Systems, Sustainable Transportation

- Member of the Korea Transportation Policy Economics Association
- Vice Chairman of the Korea Transportation Association YSC
- Standing Director of the Korea ITS Association

WORK EXPERIENCE

January/2020 -
Present
(Suwon KOREA)

Associate Professor, Urban Planning & Transportation Engineering, Kyonggi University

January/2019 -
August/2020
(Sejong KOREA)

Research Associate, National Infrastructure Research Division, The Korea Research Institute for Human Settlements (KRIHS),

December/2014 -
July/2017
(Suwon KOREA)

Research Professor, TOD-based Engineering Research Center, Ajou University

September/2012 -
November/2012
(Gothenburg, SWEDEN)

Visiting Graduate Researcher, Department of Psychology, University of Gothenburg

April/2009 -
May/2010
(Anyang KOREA)

Researcher, National Infrastructure & GIS Research Division, The Korea Research Institute for Human Settlements (KRIHS)

EDUCATION

2013

Ph.D., Urban Management, Kyoto University (Japan), April 2011-November 2013
Dissertation: Strategies for Increasing the Acceptability of Sustainable Transport Policies

2009

M.S., Civil and Transportation Engineering, Ajou University (South Korea), August 2007 - August 2009
Thesis: A Highway Investment Priority Evaluation using Multicriteria Decision Making Method of PROMETEE

2007

B.S., Civil, Environmental, and Transportation Engineering, Ajou University (South Korea), March 2004-August 2007

REFERENCES

Satoshi FUJII

Kyoto University | Professor
Urban Management
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Tommy GARLING

University of Gothenburg | Endowed Professor
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Varsolo SUNIO

University of Asia and the Pacific | Lecturer
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Jan-Dirk SCHMOECKER

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SELECTED JOURNAL PUBLICATIONS

- 1) **Junghwa Kim**, Backjin Lee, Satoshi Fujii (2011) Effect of Trip Purpose on Psychological Process for Car Use Reduction. *Journal of the Eastern Asia Society for Transportation Studies*, 9, pp.169-180.
- 2) **Junghwa Kim**, Jan-Dirk Schmöcker, Satoshi Fujii (2012) Influence of Arrogance on Acceptance of TDM Policy. *Journal of Human Environmental Studies*, 10(2), pp.71-77.
- 3) **Junghwa Kim**, Jan-Dirk Schmöcker, Satoshi Fujii, Robert B. Noland (2013) Attitudes towards Road Pricing and Environmental Taxation among US and UK Students. *Transportation Research Part A: Policy and Practice*, 48(1), pp.50-62.
- 4) **Junghwa Kim**, Satoshi Fujii, Backjin Lee (2013) Strategies to Promote Sustainable Transportation Policy Incorporating Heterogeneity. *International Journal of Sustainable Transportation*, 7(2), pp.107-124.
- 5) **Junghwa Kim**, Jan-Dirk Schmöcker, Cecilia J. Bergstad, Satoshi Fujii, Tommy Gärling (2014) The Influence of Personality on Acceptability of Sustainable Transport Policy, *Transportation* (springer), 41, pp.855–872.
- 6) **Junghwa Kim**, Jan-Dirk Schmöcker, Satoshi Fujii (2016) Exploring the Relationship Between Undergraduate Education and Sustainable Transport Attitudes. *International Journal of Sustainable Transportation*, 10(4), pp.385-392.
- 7) **Junghwa Kim**, Keechoo Choi, Sukhee Kim, and Satoshi Fujii (2017) How to promote sustainable public bike system from a psychological perspective? *International Journal of Sustainable Transportation*, 11(4), pp.272-281.
- 8) **Junghwa Kim**, Jeong Whon Yu, Jung Yoon Choi, Jan-Dirk Schmöcker (2018) Service Quality Evaluation for Urban Rail Transfer Facilities with Rasch Analysis. *Travel Behaviour and Society*.
- 9) Varsolo Sunio, Jan-Dirk Schmöcker, **Junghwa Kim** (2018) Understanding the stages and pathways of travel behavior change induced by technology-based intervention among university students, *Transportation Research Part F: Traffic Psychology and Behaviour*, 59, pp.98-114.
- 10) **Junghwa Kim**, Yeun-Touh Li, Jan-Dirk Schmöcker (2019) Regional Heterogeneity in Taiwan HSR Demand Developments, *Journal of European Planning Studies*, 27, pp.555-573.
- 11) **Junghwa Kim**, Hideki S. Tanaka, Li, Jan-Dirk Schmöcker (2020) Joint car ownership and car type preference model considering engagement in online activities and environmental concern. *Transportation Research Part F: Traffic Psychology and Behaviour*, 68, pp.293–305
- 12) **Junghwa Kim**, Jan-Dirk Schmöcker, Toshiyuki Nakamura, Nobuhiro Uno, Takenori Iwamoto, (2020) Integrated impacts of public transport travel and travel satisfaction on quality of life of older people. *Transportation Research Part A: Policy and Practice*, 138, pp.15-27
- 13) Younghoon Seo, Donghyun Lim, Woongbee Son, Yeongmin Kwon, **Junghwa Kim**, Hyungjoo Kim, (2020) Deriving Mobility Service Policy Issues Based on Text Mining: A Case Study of Gyeonggi Province in South Korea, *Sustainability*, 12(24), 10482; <https://doi.org/10.3390/su122410482>
- 14) S, Kim., H, Lim., **Junghwa Kim*** (2021) Exploring Countermeasures from a Psychological Perspective to Create a Safe Driving Environment for Personal Mobility Devices, *Sustainability*, 13(10), 5450; <https://doi.org/10.3390/su13105450>
- 15) **Junghwa Kim*** (2021) Identifying the Impact of Highway Accessibility on Manufacturing Firm Location in Korea, *KSCE Journal of Civil Engineering*, 25, pp.3523-3532.
- 16) K. Lee., W. Kim., J. Baek., **Junghwa Kim*** (2021) A Comparison into the Factors Affecting Urban Rail Systems: Local, Express, and High-Speed Rail in Tunnels at a Great Depth in a Metropolitan Area. *Sustainability*, 13(17), 9527; <https://doi.org/10.3390/su13179527>

- 17) S.H. Kim., Y. Yi., C. R. Kim., **Junghwa Kim*** (under review) Will the shift to sustainable mobility paradigm make people use less vehicles? Empirical evidence from car-free day project in South Korea. *Case Studies on Transport Policy*.
- 18) **Junghwa Kim***, S. Lee., K. Kim., H. Kim (under review) Psychological anxiety impacts on mode choice behavior during the initial period of the COVID-19 crisis, *Journal of Public Transportation*
- 19) Y. Seo, D. Lim, **Junghwa Kim**, D. Kim, H. Kim (2022) Strategy for Introducing Autonomous Driving Mobility Service in Transportation Vulnerable Areas: A Case Study of Gyeonggi Province in Republic of Korea. *KSCE Journal of Civil Engineering*, 26, pp. 4793–4804. [10.1007/s12205-022-0248-5](https://doi.org/10.1007/s12205-022-0248-5)
- 20) Chae, O., **Junghwa Kim***, J.A. Jang, H., Yun., S., Lee (2022) Development of Risk-Situation Scenario for Autonomous Vehicles on Expressway Using Topic Modeling. *Journal of Advanced Transportation*, 6880310, pp.1-19.
- 21) Ko, E., Y. Kwon., W.Son, **Junghwa Kim**, H. Kim. (2022) Factors Influencing Intention to Use Mobility as a Service: Case Study of Gyeonggi Province, Korea. *Sustainability* 14(1), 218; <https://doi.org/10.3390/su14010218>
- 22) Ryu, H., C., Kim., **Junghwa Kim***, S. Lee., J. Lee. (2022) Understanding the road rage behavior and implications: A textual approach using legal cases in Korea. *Transportation Research Interdisciplinary Perspectives*. 16, 100712, <https://doi.org/10.1016/j.trip.2022.100712>
- 23) W. Kim, **Junghwa Kim***, J.A. Jang, S. Kim (2023) Do Perceptions of Hydrogen Energy Effect on Vehicle Preference? A Learning-Based Model Approach, *KSCE Journal of Civil Engineering*, 27, pp.805–813. <https://doi.org/10.1007/s12205-022-0227-x>.
- 24) M. Kim., J. Moon., **Junghwa Kim*** (2023) Analysis of Korean Road Traffic Regulations to Establish Legal Layer for Evaluating Safety of Autonomous Driving. *KSCE Journal of Civil Engineering*, 27, pp.313–321 <https://doi.org/10.1007/s12205-022-1885-4>
- 25) T. W. Kim, J. A. Jang, G. Jeon, **Junghwa Kim*** (2024) Investigating Driver Preferences for Traffic Information Using Digital Signage and Road Surface Holograms. *KSCE Journal of Civil Engineering*, 28(4), pp.1475–1488. <https://doi.org/10.1007/s12205-024-1253-7>
- 26) Y. H. Ju, **Junghwa Kim***, W. S. Kang (2024) Estimating the Value of Time Considering Perceived Congestion and Congestion Duration on Urban Rail Transit. *Journal of Korean Society of Transportation*, 42(5), pp.533–550. <https://doi.org/10.7470/jkst.2024.42.5.533>
- 27) C. H. Kim, J. H. Moon, **Junghwa Kim***, C. H. Shin (2024) Safety-First Autonomous Vehicle Technology: Empirical Assessment of Sensor Performance in Diverse Environmental Conditions. *KSCE Journal of Civil Engineering*, 28(12), pp.5851–5862. <https://doi.org/10.1007/s12205-024-0472-2>
- 28) S. H. Kim, Y. J. Yi, C. R. Kim, **Junghwa Kim*** (2025) Will citizen participatory transport policies affect people to use cars less? Empirical evidence from car-free day project in South Korea. *Case Studies on Transport Policy*, 20(2), <https://doi.org/10.1016/j.cstp.2025.101391>
- 29) N. H. Choi, **Junghwa Kim***, S. J. Kim, K. T. Jang, J. D. Schomocker (2025) The role of perceptions and expectations for public transport satisfaction in Korean metropolitan areas. *Research in Transportation Business & Management*, 60, <https://doi.org/10.1016/j.rtbm.2025.101333>
- 30) M. B. Yoon, J. S. Choi, **Junghwa Kim***, S. H. Lee (2025) Reading Traffic Accident Patterns: A Clustering Approach to Prevention Strategies. *Information Systems Review*, 27(2), pp.177–196. <https://doi.org/10.14329/isr.2025.27.2.177>

- 31) **Junghwa Kim***(2025) Video Analysis-Based Anomaly Detection Algorithm Leveraging Collective Behavior Transitions in Subway Coaches. *Journal of Korean Society of Intelligent Transport Systems*, 24(4), pp.55–70.
- 32) T. Kim, H. Chu, J. A. Jang, H. Yun, **Junghwa Kim*** (2025) Development of Autonomous Vehicle Edge Case Scenarios Based on Topic Modelling Through Dashcam Video Analysis: Focusing on Pedestrian, Motorcycle, Bicycle, E-Scooters. *Journal of Korean Society of Transportation*, 43(5), pp.554–575.
- 33) T. Kim, Y. Ju, **Junghwa Kim*** (2025) Classification of Urban Rail Transfer Stations by Analysis of Traver Behavior and Multidimensional Local Characteristics. *Journal of Korean Society of Transportation*, 43(5), pp.649–666.
- 34) S. Kim, **Junghwa Kim***, H. Kim (2025) Perception, intimacy, risk, and fear: assessing the impact on the adoption of HFCVs and hydrogen energy. *International Journal of Sustainable Transportation*
- 35) L. Wang, J. J. Lee, J. Hu, S. Mao, Y. Yang, **Junghwa Kim*** (2025) Analysis of Injury Severity of Single-Vehicle and Two-Vehicle Crashes Involving Lightweight Vehicles (K-Car) in Japan: A Random Parameters Approach with Heterogeneity in Means. *Traffic Injury Prevention*, online ahead of print, pp.1–8. <https://doi.org/10.1080/15389588.2025.2571048>
- 36) J. Park, J. Park, M. Song, **Junghwa Kim***, S. H. Lee (2025) Associated Factors Influencing Accident Severity Across Personal Mobility (PM) Accident Types: CCA and Network Analysis Approach. *Knowledge Management Research*, 26(3), pp.261–284. <https://doi.org/10.15813/kmr.2025.26.3.013>
- 37) C. Kim, T. Kim, **Junghwa Kim*** (2025) Road Infrastructure Preferences for Dedicated Lanes and Flex Zones in Mixed Traffic. *Journal of Korean Society of Intelligent Transport Systems*, 24(6), pp.212–229. <https://doi.org/10.12815/kits.2025.24.6.212>
- 38) C. Kim, **Junghwa Kim***, I. Kim (2026) Identifying Critical Urban Traffic Risks for Autonomous Vehicle Crash Severity. *Journal of Transportation Safety & Security*, 18(3), pp.426–446. <https://doi.org/10.1080/19439962.2025.2572069>
- 39) C. Kim, J. Park, **Junghwa Kim*** (2026) Future-Proofing Curb Space: An AHP-Based Prioritization Framework for Flex Zone Use Cases in the Era of Autonomous Mobility. *KSCE Journal of Civil Engineering*, 30(6), 100521. <https://doi.org/10.1016/j.kscej.2026.100521>
- 40) H. Oh, J. Lee*, **Junghwa Kim** (2026) Interpretable Merging-Vehicle Acceleration Prediction via a Decoder-Only Transformer and Attention Map Clustering. *IEEE Access*, 14, pp.32054–32068. <https://doi.org/10.1109/ACCESS.2026.3668273>
- 41) A. Kim, H. Kim, **Junghwa Kim***, N. Uno (2026) How Transfer Hubs Shape Agglomeration: Evidence from Commercial Districts, Mobile Activity, and Land Prices in Seoul. *Sustainability*, 18(5), 2201. <https://doi.org/10.3390/su18052201>
- 42) Y. Ju, T. Kim, **Junghwa Kim*** (2026) Modeling Length-Dependent Driving Speed Reduction in Highway Tunnels with Structural Type Classification. *KSCE Journal of Civil and Environmental Engineering Research*, 46(2), pp.149–164. <https://doi.org/10.12652/Ksce.2026.46.2.0149>

AWARDS

Junghwa Kim, ‘(The Outstanding Policy Contribution Award)’, Study title: Study on the Road Network System of Provincial Cities, Korea Research Institute of Human Settlement, September 2013.

Junghwa Kim, Be elected ‘(Young Researcher of Women Scientists)’, Study title: Psychometric Analysis for the Transit Mall Evaluation, Korea Research Foundation, November 2014.

Junghwa Kim, Be elected ‘(JSPS 外国人特別研究員)’, Study title: Public Transport Service Evaluation and Optimization for a Super-aged Society using IC Card Data, Japan Society for the Promotion of Science, July 2016.

Junghwa Kim, “Award for Outstanding Paper (KSCE Journal of Civil Engineering)” Identifying the Impact of Highway Accessibility on Manufacturing Firm Location in Korea, January 2023

Junghwa Kim, “Recipient of the Minister of Land, Infrastructure and Transport Award in Korea”, 2024

1) Junghwa Kim (2026) 출근길에 숨어있는 이동의 심리학. Crepas Book. ISBN 979-11-89586-97-3. (in Korean)

CURRENT RESEARCH PROJECTS

(Mar. 2025) Optimization of a Mobility Transfer Hub System for the Development of a Polycentric and Decentralized Megacity, supported by the Ministry of Science and ICT (MSIT) and the National Research Foundation of Korea (NRF) (1st–2nd)

(Oct. 2025) Traffic Demand Estimation and Economic Analysis for the Preliminary Feasibility Study of the Yongin–Gwacheon Underground Expressway Project, ordered by the Korea Development Institute (KDI)

(Oct. 2025) Demand and Benefit Estimation for the Feasibility Study of the Gwanggyo Central Plaza Development Project in Suwon, ordered by the Korea Research Institute for Local Administration (KRILA)

(May 2026) Development and Demonstration of Region-Specific Autonomous Driving Service Models, supported by the Ministry of Land, Infrastructure and Transport (MOLIT) and the Korea Agency for Infrastructure Technology Advancement (KAIA)

(Jun. 2026) A Preliminary Study on the Introduction of a Student Commuter Shuttle Bus System, ordered by the Hwaseong–Osan Office of Education

(Jul. 2026) Advancement of Integrated Virtual–Real-World Scenarios and an Evaluation Framework to Improve the Verification Capability of a Three-Tier Connected Autonomous Driving System, ordered by the Electronics and Telecommunications Research Institute (ETRI) (1st–2nd)

(Jul. 2026) Demand and Benefit Estimation for the Feasibility Reassessment of the Wondang Public Bus Depot Development Project in Goyang, ordered by the Korea Research Institute for Local Administration (KRILA)