

**EUNSU LEE**  
**Curriculum Vitae**

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**EDUCATION**

- 2011 Ph.D. Transportation and Logistics, North Dakota State University, Fargo, North Dakota, USA
- 2007 M.S. Industrial Management and Engineering, North Dakota State University, Fargo, North Dakota, USA
- 2001 M.B.A. Production Management, Hanyang University, Seoul, Korea
- 1996 B.E. Computer Science and Engineering, Kwandong University (Catholic Kwandong University as of October 2014), Gangnung-city, Gangwon-do, Korea

**PROFESSIONAL APPOINTMENTS AND EMPLOYMENT**

- 2015 – Present Assistant Professor, School of Business, New Jersey City University, Jersey City, NJ
- 2013 – Present Adjunct Faculty, Transportation and Logistics Program, Graduate School of Interdisciplinary, North Dakota State University, Fargo, ND
- 2013 – 2015 Adjunct Faculty, Department of Industrial and Manufacturing Engineering, College of Engineering & Architecture, North Dakota State University, Fargo, ND
- 2012 – 2015 Associate Research Fellow, Upper Great Plains Transportation Institute. North Dakota State University, Fargo, ND
- 2011 – 2012 Research Analyst, Upper Great Plains Transportation Institute. North Dakota State University, Fargo, ND
- 2002 – 2004 Logistics Consultant, Korex Consulting Inc., Seoul, Korea
- 2001 – 2002 ERP Finance and Decision Support Consultant, Baan Korea Co. Ltd., Seoul, Korea
- 2001 Technical Service Manager & Project Manager, E-IDEA Data Bank Co., Seoul, Korea
- 2001 Project Manager, Department of Information Technology, National Livestock Cooperatives Federation, Seoul, Korea
- 1998 – 2000 Systems Analyst, Department of Information Technology, National Livestock Cooperatives Federation, Seoul, Korea
- 1996 – 1998 Systems Integration Engineer, Division of Milk Production, National Livestock Cooperatives Federation, Seoul, Korea
- 1990 – 1992 Ordinance Logistician, Army of the Republic of Korea

**PROFESSIONAL LICENSES AND CERTIFICATES**

- 2012 – 2017 Certified Supply Chain Professional (**CSCP**) the Association for Operations Management (APICS) – ID:115216, January 2012.
- 2012 – 2017 GIS Professional (**GISP**), the Geographic Information Systems Certification Institute (GISCI)-No.65258, February 2012.
- 2011 – 2016 Certified in Production and Inventory Management (**CPIM**), the Association for Operations Management – ID:113581, September 2011.

- 2000 Korea Certified Logistics Consultant, endorsed by the Minister of Land, Transport, and Maritime Affairs, Republic of Korea, 2000.
- 1999 National License for Distribution Manager (1st & 2nd class), licensed by the Korea Chamber of Commerce and Industry, endorsed by Minister of Knowledge Economy, Republic of Korea, 1999.

## **PUBLICATIONS (\*Corresponding Author)**

### **Refereed Papers**

- 2016 Bridgelall, R., Lee, E. & Taleqani, A.R. "Sourcing Strategy for Asphalt Production Feedstock Considering Multimodal Transport Options," *Management Review: International Journal*, 11(1), 4-31.
- 2016 Bridgelall, R.\*, Rafert, J.B., Tolliver, D., & Lee, E. "Resolution Agile Remote Sensing for Hazardous Material Spill," *Transportation Research Record: Journal of Transportation Research Board*, No. 2547. <http://dx.doi.org/10.3141/2547-08>.
- 2016 Park, Y.S., Al-Qublan, H., Lee, E. \*, & Egilmez, G. "Interactive Spatiotemporal Analysis of Oil Spills Using Comap in North Dakota," *Informatics*, 3(2), 1-10. <http://dx.doi.org/10.3390/informatics3020004>
- 2016 Dharmadhikari, N., Lee, E. \*, & Kayabas, Po. "The Lifecycle Benefit-Cost Analysis for a Rural Bridge Construction to Support Energy Transportation," *Infrastructures*, 1(1). 1-14. <http://dx.doi.org/10.3390/infrastructures1010002>
- 2015 Stith, D. & Lee, E.\* "Context Sensitive Solution: A Case Study of Jamestown Corridor Improvement," *Journal of Civil Engineering and Architecture*, 9(11). 1334-1340. <http://dx.doi.org/10.17265/1934-7359/2015.11.008>
- 2015 Dharmadhikari, N.\* & Lee, E. "Average Opportunity-Based Accessibility of Public Transit Systems to Grocery Stores in Small Urban Area," *Cogent Engineering* 2(1), <http://dx.doi.org/10.1080/23311916.2015.1068968>.
- 2015 Lee, E.\*, & Oduor, P. G. "Using Multi-attribute Decision Factors for Traffic Assignment," *ISPRS International Journal of Geo-Information* 4(2), 883-899. <http://dx.doi.org/10.3390/ijgi4020883>
- 2015 Lee, E.\*, Dybing, A., & Shakya, S. "Location-Routing Problem with Time Window and Land Use Plan using GIS," *Beverages* 1(2), 55-69. <http://dx.doi.org/10.3390/beverages1020055>
- 2015 Lee, E.\* "Spatial Analysis for an Intermodal Terminal to Support Agricultural Logistics: A Case Study in the Upper Great Plains." *Management Research Review* 38(3). 299-319. <http://dx.doi.org/10.1108/MRR-06-2013-0131>.
- 2015 Choi, J., Roberts, D.C.\*, & Lee, E. "Forecasting Oil Production in North Dakota Using the Seasonal Autoregressive Integrated Moving Average (S-ARIMA)," *Natural Resources* 6, 6-16. <http://dx.doi.org/10.4236/nr.2015.61003>
- 2015 Choi, J.\*, Roberts, D.C., & Lee, E. "Productivity Growth in the Transportation Industries in the United States: An Application of the DEA Malmquist Productivity Index," *American Journal of Operations Research* 5(1), 1-20. <http://wx.doi.org/10.4236/ajor.2015.51001>
- 2014 Choi, J.\*, Roberts, D.C., & Lee, E. "Forecast of CO<sub>2</sub> emissions from the U.S. Transportation Sector: Estimation from a Double Exponential Smoothing Model," *Journal of Transportation Research Forum* 53(3), 63-81
- 2014 Choi, J., Lee, E.\*, & Roberts, D.C. "Reshaping Tribal Road Network Using Public Information," *Journal of Geographic Information System* 6(6), 594-604. <http://dx.doi.org/10.4236/jgis.2014.66049>

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- 2014 Kim, C.M. & Lee, E.\* “Soybean Import Demand Analysis in East Asia: Korea, China, and Japan,” *Management Review: An International Journal* 9(1), 4-24
- 2014 Lee, E.\* “Designing Service Coverage and Measuring Accessibility and Serviceability of Rural and Small Urban Ambulance Systems,” *Systems*, 2(1), 34-53
- 2014 Lee, E.\*, Farahmand, K., Oduor P. G., & Tolliver, D. “Intermodal Transportation of Global Supply Chain for the Containerized Freight,” *Maritime Economics & Logistics*, 16(1), 33-54
- 2014 Lee, E.\* & Rhim, H. “Defining Factors Affecting User’s Satisfaction for Information Systems by Using Conjoint Analysis,” *Management Research Review*, 37(1), 69-88
- 2013 Lee, E.\* & Farahmand, K. “Simulation of Port Disruption and Transportation Resources for U.S. Containerized Imports,” *Management Review: An International Journal* 8(1), 4-37
- 2013 Lee, E.\* & Farahmand, K. “Simulation of a Base Stock Inventory Management System Integrated with Transportation Strategies of a Logistic Network,” *Journal of Civil Engineering and Architecture* 7(5), 633-644. DOI:10.17265/1934-7359/2013.05.014
- 2012 Lee, E.\*, Farahmand, K., & Oduor, P. G. “Application of Signal Detection Theory to Ascertain Driving Risk and Mitigation in a Flooded Urban Area,” *Journal of Civil Engineering and Architecture* 6(4), 515-530
- 2012 Lee, E.\*, Oduor, P. G., & Farahmand, K. “Simplistic Geospatial Techniques in Analyzing Transportation Dynamics for Origin-Destination Container Movement Routes in the United States,” *Journal of Transportation, System Engineering, and Information Technology* 12(1), 79-90
- 2011 Lee, E.\*, Oduor, P. G., Farahmand, K., & Tolliver, D. “Heuristic Path-Enumeration Approach for Container Trip Generation and Assignment,” *Journal of Transportation Research Forum* 50(3), 7-21
- 2011 Tolliver, D.\*, Dybing, A., Lu, P., & Lee, E. “Modeling Investments in County and Local Roads to Support Agricultural Logistics,” *Journal of Transportation Research Forum* 50(2), 101-115

### Refereed Conference Proceedings

- 2016 Bridgelall, R\*., Rafert, J.B., Tolliver, D., & Lee, E. “Resolution Agile Remote Sensing for Hazardous Material Spill,” Transportation Research Board 95<sup>th</sup> Annual Meeting, 16-0110. <http://trid.trb.org/view.aspx?id=1392235>
- 2015 Bridgelall, R. & Lee, E.\* “Context Sensitive Solution: A Case Study of Northwest Highway White Rock Lake, Dallas, USA,” *Transportation Research Board Annual Meeting Compendium*, January 2015, Paper ID:15-3291.
- 2010 Lee, E.\* & Farahmand, K. “Simulation of a Base Stock Inventory Management System Integrated with Transportation Strategies of a Logistic Network,” *Proceedings of the 2010 Winter Simulation Annual (WinSim) Conference*, 1934-1945
- 2009 Lee, E.\* & Farahmand, K. “Considering Impedance for Intermodal Freight Transportation,” In: J.C. Smith and J. Geunes, (eds.) *Innovations Revealed*. Proceedings of the 2009 Institute of Industrial Engineering Research Conference (IERC), 1345-1350
- 2008 Farahmand, K.\* & Lee, E. “Investigating Productivity and Efficiency through Simulation Technology and Application.” *2008 IIE Annual Conference – Applied Solutions Session*
- 2008 Lee, E.\* & Farahmand, K. “Impact of Demand Variability on Supply Chain Performance,” In: J. Fowler and S. Mason, (eds.) *How Businesses Take Flight*. Proceedings of the 2008 Industrial Engineering Research Conference (IERC), 1338-1343

**Non-Refereed Papers and Proceedings**

- 2013 Lee, E. \*, Dybing, A., & Tolliver, A. "Statewide Freight Demand Modeling to Support Long-range Transportation Planning in North Dakota." In *Innovations in Freight Modeling and Data: The Proceedings of the Freight Demand Modeling and Data Improvement Symposium - A Transportation Research Board SHRP 2 Symposium*.  
[http://onlinepubs.trb.org/onlinepubs/shrp2/C43/SHRP2\\_symposium2013\\_Lee.pdf](http://onlinepubs.trb.org/onlinepubs/shrp2/C43/SHRP2_symposium2013_Lee.pdf)
- 2013 Lee, E. & Zheng, Z.\* "Development of GIS Multimodal Capacity model for the Northern Tier Freight Corridor." *Proceedings of the North Dakota GIS Users Conference 2013*
- 2013 Lee, E. "Connectivity and Equality: Consequence of Emergency Medical Services." *Proceedings of the Geospatial Information Systems for Transportation Symposium and Administrative Subcommittee on Information Systems (ASIS) Meeting*
- 2013 Lee, E. "Long Range Transportation Planning to Deal with Oil Production." *Proceedings of the Geospatial Information Systems for Transportation Symposium and Administrative Subcommittee on Information Systems (ASIS) Meeting*
- 2011 Lee, E. "3D Visualization for Transportation Networks in Flood Regions." *Proceedings of the Geospatial Information Systems for Transportation Symposium*
- 2011 Lee, E. \*, Oduor, P.G., Farahmand, K., & Tolliver, D. "Dynamic Algorithm for Geospatial Analysis to Predict Feasible Freight Routes." *Proceedings of the North Dakota GIS Users Conference 2011*
- 2011 Dharmadhikari, N. & Lee, E.\* "Overcoming Computational Performance Constraints of Agricultural Transportation Planning in GIS." *Proceedings of the North Dakota GIS Users Conference 2011*
- 2011 Kayabas, P. & Lee, E. "Location Optimality for Ambulance Service in North Dakota." *Proceedings of the North Dakota GIS Users Conference 2011*
- 2010 Lee, E. "Spatial Decompositions for Gravity and Shortest Path for Set covering for Measuring Potential Accessibility to Emergency Service." *Proceedings of URISA's 48<sup>th</sup> Annual conference for GIS Professionals*.
- 2010 Lee, E. "Estimating Trip Diversion by using Impedance in Flood Region." *GIS-T Symposium by American Association of State Highways and Transportation Officials*
- 2009 Lee, E.\* & Farahmand, K. "Location Problem for Intermodal Terminal in North Dakota." *Proceedings of the 2009 Transportation Research Forum Conference*

**Technical Reports / Working Papers**

- 2015 Witzke, E., Bhamidipati, C., Diersen, M., Wang, Z., & Lee, E. (2016) "Agricultural Freight Data Improvement," South Dakota Department of Transportation: SD2014-09-F (Forthcoming)
- 2015 Lara Piesch & Lee, E.\* (August 2015) "Quality Assurance of Emergency Management Operation Processes through Statistical Process Control," Upper Great Plains Transportation Institute: DP-283
- 2014 Molla, Stone, L.M., & Lee, E. \* (November 2014) "Geostatistical Approach to Detect Traffic Accident Hot Spots and Clusters in North Dakota." Upper Great Plains Transportation Institute: DP-276
- 2014 Lee, E. \*, Dharmadhikari, N., and Dybing, A. (October 2014) "Spatial Estimates of Long-term Drilling Locations." Upper Great Plains Transportation Institute: DP-275
- 2013 Mitra, S., Lee, E. \*, DeHaan, C., Kayabas, P., & Itani, M. (December 2013). "Integrating Supply Chain Models in Urban Freight Planning." Mountain-Plains Consortium: MPC-13-259
- 2013 Lee, E., Vachal, K. \*, & Kayabas, P. (October 2013). "Phase I: Positioning Emergency Medical Services for Trauma Response for Rural Traffic Crashes: Pilot Case of Williston Basin in North

Dakota.” North Dakota State University, Fargo: Upper Great Plains Transportation Institute, (DP-270)

- 2013 Dybing, A. \*, Lee, E., DeHaan, C., & Dharmadhikari, N. (February 2013). “Impacts to Montana State Highways due to Bakken Oil Development.” Montana Department of Transportation, Helena, (MT. Report No. MT/FHWA-12-005/8219)
- 2011 Tolliver, D. \*, Lee, E., Dybing, A., & Lu, P. (November 2011) “Agricultural Transportation in Lower Ohio River Valley.” Submitted to U.S. Army Corps of Engineers (confidential report)

### Literary (Newspapers and Periodicals)

- 2013 “The Need for Efficient Emergency Management in Rural Areas in S. Korea (농어촌 응급의료체계 구축 서둘러야).” *The Kangwon-Ilbo* 5 Mar. 2013, Kangwon-do Print.
- 2011 “Publishing a Manual for Unpredictable Natural Disasters (예측 불가능한 자연재해, 매뉴얼을 만들어라).” *The Gangwond Domin Ilbo* 16 Feb. 2011, Kangwon-do Print
- 2011 “Suggestions for Effective Snow Plowing under Uncertain Conditions (원활한 제설작업을 위한 제안).” *The KyungNam Domin Ilbo* 15 Feb. 2011, Kyungsangnam-do Print
- 2011 “Things to Consider about Convicting Pirates (해적 재판에 앞서 고려해야 할 것들).” *The HanKyoReh* 29 Jan. 2011, Seoul Print
- 2010 “Clouds of Air Cargo Terrorism in Yemen (예멘 발 항공화물 테러의 후폭풍).” *SCM & Logistics* 15 Nov. 2010, Seoul Print
- 2010 North Dakota Chapter Rising from the Northern Great Plains, *Korean-American Scientists and Engineers Letters*, 39(1). June 2010, pp. 56
- 2010 Stay Young by Being Energetic, Creative & Having a Learning Attitude, *Korea-America Scientists and Engineers Letters* 38(3). October 2010, pp. 29-30

### HONORS & AWARDS

- 2012 Nimish Dharmadhikari and Zijian Zheng (Dr. EunSu Lee’s advisee) received the Graduate Student Paper Award (2<sup>nd</sup> Place), the Urban and Regional Information Systems Association (URISA), Portland, OR, USA
- 2012 Vu Dang (Dr. EunSu Lee’s advisee) received the Graduate Student Paper Award (4<sup>th</sup> Place), the Urban and Regional Information Systems Association (URISA), Portland, OR, USA
- 2010 Graduate Student Paper Award (1<sup>st</sup> Place), the Urban and Regional Information Systems Association (URISA), Orland, FL, USA
- 2010 Graduate Student Paper Winner, Geospatial Information Systems for Transportation (GIS-T) Symposium, Charleston, WV, USA
- 2010 Korean-American Scientists and Engineers (KSEA), Seattle, WA
- 2009 Inductee of the Tapestry of Diverse Talents, North Dakota State University
- 2008 Bison Leadership Award in Culture, Commissioners of Student Activities, Student Government of North Dakota State University
- 2008 Korean Honor Scholarship, Embassy of the Republic of Korea in the United States of America, Washington D.C.
- 2007 Google Earth–3D Campus Design Competition in the final list, Google Inc.

**INVITED TALKS**

- 2014 “Using FAF Data in Economic Analysis”, Office of Freight Management and Operations, Federal Highway Administration (FHWA), U.S. Department of Transportation (Number of attendee: 159).
- 2014 “Linear Referencing Systems and Management: Applications,” Pine to Prairie GIS User Group (Number of attendee: 19).
- 2014 “Vehicle Routing Problem using ArcGIS,” Pine to Prairie GIS User Group (Number of attendee: 25).

**PRESENTATIONS († Presenter)****National and International Meetings**

- 2016 “Optimization in Transportation Planning: Assigning Trips on Routes,” 2016 INFORMS Optimization Society Conference, Princeton, NJ, USA (March 17-19, 2016)
- 2016 “Resolution Agile Remote Sensing for Hazardous Material Spill (with Bridgelall, R<sup>†</sup>, Rafert, J.B., Tolliver, D.),” Transportation Research Board 95<sup>th</sup> Annual Meeting, Washington D.C., USA (January 1-14, 2016)
- 2015 “An Agent-based Modeling for Remotely Piloted Aircraft Package Delivery in Rural Area (with Ali Rahim Taleqani<sup>†</sup>),” INFORMS 2015 Annual Meeting, Philadelphia, Pennsylvania, USA (November 1-4, 2015)
- 2015 “Facility Location Problem Considering Time Window and Land Use Plan using GIS (with Alan Dybing and Sumadhur Shakya),” INFORMS 2015 Annual Meeting, Philadelphia, Pennsylvania, USA (November 1-4, 2015)
- 2015 “Developing Interactive Map for Supporting County Roads Improvement and Transportation Planning (with Bradley Lantz<sup>†</sup>),” Geospatial Information Systems for Transportation (GIS-T) Symposium, Des Moines, Iowa, USA (April 19-22, 2015)
- 2015 “Eco-Efficiency of U.S. Container Ports Using Data Envelop Analysis (DEA) (with N. Muhammad Aslaam Mohamed Abdul Ghani<sup>†</sup>, Yong Shin Park),” Transportation Research Forum Annual Meeting, Atlanta, Georgia, USA (March 11-13, 2015)
- 2015 “Airport Congestion Mitigation: A Multimodal Approach (with Annexstad, Jared<sup>†</sup>),” Transportation Research Forum Annual Meeting, Atlanta, Georgia, USA (March 11-13, 2015)
- 2015 “Feedstock Import Options Regarding Transportation Systems for Asphalt Production (with Raj Bridgelall),” Transportation Research Forum Annual Meeting, Atlanta, Georgia, USA (March 11-13, 2015)
- 2015 “Reshaping Tribal Road Network Using Public Information (with Jaesung Choi<sup>†</sup>),” Transportation Research Board 94<sup>th</sup> Annual Meeting, Washington D.C., USA (January 11-15, 2015) <sup>Peer Reviewed</sup>
- 2015 “Context Sensitive Solutions: Case Study of Northwest Highway, White Rock Lake, Dallas, Texas (with Raj Bridgelall),” Transportation Research Board 94<sup>th</sup> Annual Meeting, Washington D.C., USA (January 11-15, 2015) <sup>Peer Reviewed</sup>
- 2014 “Designing Service Coverage and Measuring Accessibility and Serviceability,” INFORMS Annual Meeting, San Francisco, California, USA (November 13-15, 2014)
- 2014 “Yield Forecasting to Sustain the Agricultural Transportation under Stochastic Environment (with N. Dharmadhikari<sup>†</sup> and F. Kambiz),” 55<sup>th</sup> Annual Transportation Research Forum, San Jose, California, USA (March 13-15, 2014)
- 2014 “Future Oil Production in North Dakota – Estimates Based on a Seasonal Autoregressive Integrated Moving Average (S-ARIMA) (with Jaesung Choi<sup>†</sup> and David Roberts),” 55<sup>th</sup> Annual Transportation Research Forum, San Jose, California, USA (March 13-15, 2014)

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- 2014 “An Investigation of Factors Influencing Port Choice Regarding Commodities and Foreign Trade Partners (with Wonjoo Cho),” 55<sup>th</sup> Annual Transportation Research Forum, San Jose, California, USA (March 13-15, 2014)
- 2014 “Multimodal Transportation for Crude Oil Shipment in North Dakota,” 55<sup>th</sup> Annual Transportation Research Forum, San Jose, California, USA (March 13-15, 2014)
- 2013 “Statewide Freight Demand Modeling to Support Long-Range Transportation Planning in North Dakota,” A Transportation Research Board SHRP 2 Symposium, Herndon, Virginia, USA (October 21-22, 2013)
- 2013 “Where is the next drilling location?” GIS-Pro 2013: URISA’s 51st Annual Conference for GIS Professionals, Providence, Rhode Island, USA (September 15-19, 2013)
- 2013 “Connectivity and Equality: Consequence of Emergency Medical Services,” Geospatial Information Systems for Transportation Symposium and Administrative Subcommittee on Information Systems (ASIS) meeting, Boise, Idaho, USA (May 2013)
- 2013 “Long Range Transportation Planning to Deal with Oil Production: Dynamic Oil Trip Generation,” Geospatial Information Systems for Transportation Symposium and Administrative Subcommittee on Information Systems (ASIS) meeting, Boise, Idaho, USA (May 2013)
- 2012 “Integrating Supply Chain Network Model for Auto Industry in Midwest Using GIS,” (with Kazemi Yasaman<sup>†</sup>). The Institute for Operations Research and the Management Sciences (INFORMS) Annual Conference, Phoenix, Arizona, USA (October 2012)
- 2012 “Impetus to Short Sea Shipping through Marine Highways,” Transportation Research Forum (TRF) Annual Conference, Tampa, Florida, USA (March 2012)
- 2011 “Positioning Emergency Medical Services for Trauma Response for Rural Traffic Crashes,” (with Poyraz Kayabas<sup>†</sup>). The Institute for Operations Research and the Management Sciences (INFORMS) Annual Conference, Charlotte, North Carolina, USA (November 2011)
- 2011 “Visualizing Path-Based Routes for Import Containerized Freights in U.S,” (with Kambiz Farahmand & Denver Tolliver). U.S.-Korea Conference (UKC-2011), Park City, Utah, USA (August 2011)
- 2011 “Signal Detection Theory to Ascertain Driving Risk and Mitigation in a Flooded Urban Area,” (with Kambiz Farahmand & Peter G. Oduor). Institute of Industrial Engineering Annual (IIE) Conference, Reno, Nevada, USA (May 2011)
- 2011 “Visualizing Path-Based Routes for Import Containerized Freights in U.S.” (with Kambiz Farahmand & Denver Tolliver). Transportation Research Forum (TRF) Annual Conference, Long Beach, California, USA (April 2011)
- 2011 “3-D Transportation Network in Flooded Region,” GIS-T symposium 2011, Hershey, Pennsylvania, USA (April 2011)
- 2011 “Agent-Based Model for Disruption of Intermodal Transportation” (with Nimish Dharmadhikari<sup>†</sup> & Jarrett Brachman). Transportation Research Forum Annual Conference, Long Beach, California, USA (March 2011)
- 2010 “Simulation of Base Stock Inventory Management System Integrated with Transportation Strategies of a Logistic Network” (with Kambiz Farahmand). 2010 Winter Simulation Conference, Baltimore, Maryland, USA (December 2010) <sup>Peer Reviewed</sup>
- 2010 “Spatial Decompositions for Gravity and Shortest Path for Set covering for Measuring Potential Accessibility to Emergency Service,” URISA’s 48<sup>th</sup> Annual conference for GIS Professionals, Orlando, Florida, USA (September 2010) <sup>Peer Reviewed</sup>
- 2010 “Decomposing the Customer Preference in Information Systems by Using Conjoint Analysis,” Korean-American Scientists and Engineers (KSEA) – Young Generation and Professional Forum (YGPFF), Seattle, Washington, USA (August 2010)

- 2010 “Visualizing Transportation Network in 3D from LiDAR Data Using Geographic Information Systems,” (with Haram Kim) Korean-American Scientists and Engineers (KSEA) – Young Generation and Professional Forum (YGPF), Seattle, Washington, USA (August 2010)
- 2010 “Estimating Trip Diversion by using Impedance in Flood Regions,” American Association of State Highways and Transportation Officials (AASHTO): Geospatial Information Systems for Transportation (GIS-T) Symposium, Charleston, West Virginia, USA (April 2010)
- 2009 “Simulation-Based Route Selection for Dispatching a Snow Removal Fleet,” The Institute for Operations Research and the Management Sciences (INFORMS) Annual Conference, San Diego, California, USA (October 2009)
- 2009 “Analyzing Freight Data between the Borders in North America” (with Christopher DeHaan<sup>†</sup> & Kambiz Farahmand). Transportation Research Board (TRB): North American Freight Analysis Conference, Irvine, California, USA (September 2009)
- 2009 “North American Freight Analysis: Incorporating Logistical Impedance,” (with Kambiz Farahmand & Christopher DeHaan). Transportation Research Board (TRB): North American Freight Analysis Conference, Irvine, California, USA (September 2009)
- 2009 “Considering Impedance for Intermodal Freight Transportation,” (with Kambiz Farahmand). Institute of Industrial Engineering (IIE) Annual Conference, Miami, Florida, USA (May 2009) <sup>Peer Reviewed</sup>
- 2009 “Location Problem for Intermodal Terminal in North Dakota,” (with Kambiz Farahmand). Transportation Research Forum (TRF) 50th Annual Conference, Portland, Oregon, USA (March 2009)
- 2008 “Investigation of Productivity and Efficiency by Simulation Technique” (with Kambiz Farahmand). Institute of Industrial Engineering (IIE) Annual Conference, Vancouver, British Columbia, Canada (May 2008)
- 2008 “Impact of Demand Variability of Supply Chain Performance,” (with Kambiz Farahmand). Institute of Industrial Engineering (IIE) Annual Conference, Vancouver, British Columbia, Canada (May 2008) <sup>Peer Reviewed</sup>

### **State and Regional Meetings**

- 2013 “Development of GIS Multimodal Capacity Model for Northern Tier Freight Corridor,” (with Subhro Mitra, & Zijian Zheng<sup>†</sup>). North Dakota GIS Users Conference 2013, Grand Forks, North Dakota, USA (September 10-12, 2013)
- 2012 “GIS Modeling of County and Local Roads to Support Agricultural Transportation,” (with Denver Tolliver, Alan Dybing, & Pan Lu). Minnesota GIS/LIS Consortium Annual Conference, St. Cloud, Minnesota, USA (October, 2012)
- 2011 “Location Optimality for Ambulance in North Dakota,” (with Poyraz Kayabas<sup>†</sup>). North Dakota GIS Users Conference 2011, Grand Forks, North Dakota, USA (October 2011).
- 2011 “Winter Road Maintenance Using GIS,” (with Poyraz Kayabas<sup>†</sup>). North Dakota GIS Users Conference 2011, Grand Forks, North Dakota, USA (October 2011)
- 2011 “Overcoming Computational Performance Constraints of Agricultural Transportation Planning in GIS,” (with Nimish Dharmadhikari<sup>†</sup>). North Dakota GIS Users Conference 2011, Grand Forks, North Dakota, USA (October 2011)
- 2011 “Dynamic Algorithm for Geospatial Analysis to Predict Feasible Freight Routes,” (with Denver Tolliver, Peter G. Oduor, & Kambiz Farahmand). North Dakota GIS Users Conference 2011, Grand Forks, North Dakota, USA (October 2011)



- 2010 “Using Digital Elevation Model for Route Choice under Natural Disaster,” Graduate Research and Art Forum, North Dakota State University, Fargo, North Dakota, USA (April 2010).
- 2010 “Using Digital Elevation Model for Route Choice under Natural Disaster,” Korean-American Science and Engineer Association (KSEA): the Midwest Regional Conference, Iowa City, Iowa, USA (March 2010)

### **CAMPUS OR DEPARTMENTAL TALKS**

- 2014 “Statewide Freight Demand Modeling: Multimodal Perspective for Oil Development,” Guest Speaker in IME 472 Seminar Series, Department of Industrial & Manufacturing Engineering, NDSU (April 4, 2014)
- 2011 “Transportation for Globalized and Multicultural Society,” Guest Speaker in the World I View Series, Equity and Diversity, NDSU (March 24, 2011)
- 2008 “Application and Modeling for Simulation using Pro-Model®,” Guest Lecture in IME 472/672 (Simulation of Business and Industrial Systems), Department of Industrial and Manufacturing Engineering, NDSU (April 2008)
- 2007 “Discrete-Event Simulation for Inventory Analysis,” Guest Lecture in IME 790 (Graduate Seminar), Department of Industrial and Manufacturing Engineering, NDSU (March 2007)

### **TEACHING EXPERIENCE**

#### **Department of Management, School of Business, New Jersey City University**

- BUSI 213 Business Statistics (fall 2015) – Undergraduate
- MGMT412 Business Information Systems (fall 2015) – Undergraduate
- MGMT413 Global Supply Chain Management (fall 2015) – Undergraduate

#### **Department of Industrial and Manufacturing Engineering, North Dakota State University**

- Operations Research I (spring 2014, spring 2015) – Undergraduate, Graduate
- Logistics Engineering and Management (fall 2014) – Undergraduate, Graduate
- Quality Assurance and Control (spring 2013) – Undergraduate, Graduate

#### **Transportation and Logistics Program, North Dakota State University**

- Context Sensitive Solutions (spring 2013/2014/2015) – Graduate, Online Graduate, Certificate, Distant & Continuous Education
- Transportation Planning and Environmental Compliance (fall 2012/2013/2014) 2014 Graduate, Online Graduate, Certificate, Distant & Continuous Education
- Transportation System Modeling (summer 2013) – Graduate, Online Graduate, Certificate
- Spatial Analysis in Transportation (spring 2013/2014/2015) - Graduate

### **APPLIED RESEARCH ACTIVITIES**

- 2015 North Dakota State University, “Improving crossing in campus,” Leading Charrette, leading the project team and providing guidance
- 2015 Fargo-Moorhead Ambulance in Fargo, North Dakota, “Applying Control Charts for Improving Service Quality,” Developing and guiding the project with one undergraduate student.

- 2014 North Dakota Department of Transportation, “State Highway Needs Study,” Spatial analysis, developed CUBE transportation planning template, and advised research assistants
- 2014 Upper Great Plains Transportation Institute, “Grain Storage and Transportation,” Developed and led the project with two groups of ten students and one program director from UGPTI
- 2014 North Dakota Legislative Assembly, “County and Township Road Infrastructure Investment Needs,” Spatial analysis and co-principal investigator
- 2014 North Dakota Department of Transportation, “Factors Affecting Severe Highway Crashes in North Dakota,” Developing algorithms of calculating horizontal curvatures and guiding graduate research assistant to develop a regression model
- 2012 The 63<sup>rd</sup> North Dakota Legislative Assembly, “Study of County and Local Roadway Needs 2011-2013,” Spatial analysis and co-principal investigator
- 2012 Karma, Lee, and Jackson (KLJ) in Bismarck, North Dakota, “Little Missouri River Crossing Study,” Developed and guided the class project with two groups of eight students with three employee from KLJ.
- 2011 Upper Great Plains Transportation Institute in Fargo, North Dakota, “Rural Road Investment Needs to Support Agricultural Logistics and Economic Development in North Dakota,
- 2010 Upper Great Plains Transportation Institute in Fargo, North Dakota, “Additional Road Investments Needed to Support Oil and Gas Production and Distribution in North Dakota,” Created maps for counties using final investment allocation and pavement types
- 2006 North Dakota Department of Transportation, District 8-Fargo, “Simulation of Snow Removal Planning,” developed simulation modeling and led the project team
- 2004 Swanson Health Products in Fargo, North Dakota, “Developing Forecasting Methods for Production Improvement,” Developed and led the project with five other graduate students and one employee from Swans Health Product

## **SERVICE TO PROFESSION**

### **Editorial Board**

Modern Traffic and Transportation Engineering Research (MTTER) (2014-Present)

### **Journal Manuscript Review Work**

Journal of Business Logistics (JBL) (2015)

International Journal of Geographic Information Sciences (2013)

Management Research Review (2012, 2013, 2014)

Maritime Policy & Management (2012)

SAGE Open (2013)

Transportation Research Board – Journal of Transportation Research Record and Annual Conference (2011, 2012, 2013, 2014, 2015)

Journal of Transportation Technologies (JTTS) (2014)

Journal of Civil Engineering and Architecture Research (2014, 2015)

Journal of Social Science (2015)

### **Ad-Hoc Peer Review**

Invited for reviewing a proposal for Small Business Innovation Research Program (SBIR): U.S. Department of Agriculture – National Institute of Food and Agriculture (NIFA) (2015)

Management Review: International Journal (2015)

Decision Science Institute – Annual Conference (2010)

Institute of Industrial Engineering (IIE) Annual Conference (2008, 2009)

International Conference on Operations Excellence and Service Engineering (2015)

### **Leadership of Professional Organizations**

2015 Session Organizer: Geospatial Analysis for Transportation (Transportation and Logistics), INFORMS 2015 Annual Meeting

2015-2016 Member of the Subcommittee on Statewide Travel Demand Forecasting (ADA10-2)

2016-2018 Member of the Standing Committee on Agricultural Transportation (AT030), Transportation Research Board, a division of the National Research Council (NRC)

2013-2018 Member of the Standing Committee on Visualization in Transportation (ABJ95), Transportation Research Board, a division of the National Research Council (NRC)

2014-2015 Co-chair of the North Dakota GIS Users Annual Meeting Planning Committee (September 28-29, 2015)

2013-2015 Student Paper Contest Judge, GIS-T Symposium, American Association of State Highway and Transportation Organization (AASHTO)

### **COMMUNITY INVOLVEMENT/OUTREACH**

2013 North Dakota State Science and Engineering Fair, the Center for Science & Mathematics Education

2010 North Dakota State – South East Regional Science Fair, the Center for Science & Mathematics Education

2006 Introduction to Korean Culture and Language (Child), Fargo-Moorhead Korean School

### **RELATED PROFESSIONAL SKILLS & TRAINING**

#### **Logistics and Supply Chain Management**

2012 Certified Supply Chain Professional (CSCP) the Association for Operations Management (APICS), January 2012.

2011 Certified in Production and Inventory Management (CPIM), the Association for Operations Management, September 2011.

2000 Korea Certified Logistics Consultant, endorsed by the Minister of Land, Transport, and Maritime Affairs, Republic of Korea, 2000.

1999 National License for Distribution Manager (1st & 2nd class), licensed by the Korea Chamber of Commerce and Industry, endorsed by Minister of Knowledge Economy, Republic of Korea, 1999.

1999 E-Commerce and Electronic Data Interchange, Korea Trade Net Inc., Seoul, Korea, 1999

2001 China Business Course, Korea International Trade Center Academy, Korea International Trade Association, Seoul, Korea, 2001

2001 Japanese Retailer Distribution Systems in Tokyo and Fuji, Graduate School of Distribution and Logistics, Myongji University, Seoul, Korea, and Fuji-Tokoha University (富士常葉大学), Fuji, Japan, 2001

### **Geospatial Analysis**

2012 GIS Professional (GISP), the Geographic Information Systems Certification Institute (GISCI)-No.65258, February 2012.

2015 Part II of III of Cyclomedia's URISA Business Partner webinar series, March 24

ESRI Training: received more than 30 certificates

### **Urban and Regional Development and Rural Community Development**

2015 Context Sensitive Solutions (CSS) – Minnesota Department of Transportation, St. Paul, MN February 2.

2013 NCI Charrette System™ Training, National Charrette Institute, Portland, OR July 2013.

### **Big Data and Informatics**

2013 CUBE® Training – Advanced Scripting Technique with Cube Voyager, Citilabs Inc., Ponte Verde Beach, FL October 17-18, 2013 (16 hours)

2013 CUBE® Training, Citilabs Inc., Fargo, ND August 6-8, 2013 (24 hours)

2000 Production and Inventory Management, Nissy Consulting Inc., Seoul, Korea

2000 Statistical Analysis Using SAS, the Korea Banking Institute, Seoul, Korea

2000 Oracle – Database Management Systems (DBMS) and Applications, Oracle Korea, Inc. Seoul, Korea

1998 PowerBuilder Development Tool and Sybase DBMS, LG-EDS Systems Inc. Seoul, Korea

### **Continuing Education**

2014 Discrete Choice Analysis: Predicting Demand and Market Shares, Massachusetts Institute of Technology, Cambridge, MA (2.8 CEU) June 16-20, 2014

2012 Modeling and Simulation of Transportation Networks, Massachusetts Institute of Technology, Cambridge, MA (2.8 CEU), August 2012

2012 Model Thinking, University of Michigan-Ann Arbor, MI

### **Computer Software**

*Statistical Software:* SAS, SPSS, R, & MiniTab

*Database Software:* Microsoft SQL and Access, Oracle, BaaN ERP, & Sybase

*Operating Systems:* Window 2000, Windows-NT, Linux, UNIX-AIX

*Programming Languages:* PowerBuilder, Visual Basic, C++, Fortran, BASIC, & Matlab

*Simulation:* ProModel® for Discrete Event Simulation and FlexSim® for 3D Discrete Event Simulation, AnyLogic®-Agnent-Based Modeling and System Dynamics

*Optimization Software:* SAS Optimization, Lingo® and LINDO®, & Excel Solver

*Freight Demand Modeling:* CUBE 6.x, MOVES2014, HERS-ST

## **PROFESIONAL MEMBERSHIPS/AFFILIATIONS**

### **International and National Affiliations**

Transportation Research Board, Since 2011 (ABJ30-Urban Transportation Data and Information Systems; ABJ60-Geographic Information Science and Applications; ABJ95-Visualiation in Transportation; ADA10-Statewide Multimodal Transportation Planning; ADD40-Transportation and Sustainability ;

AT045-Intermodal Freight Transport; ABE80-Native American Transportation Issues; AT020-International Trade and Transportation)

Transportation Research Forum (TRF), Since 2009.

Association for Operations Management (APICS), Since 1998.

Korean-American Scientists & Engineers Association (KSEA), Since 2010.

Institute for Operations Research and Management Science (INFORMS), Since 2009.

Urban & Regional Information Systems Association (URISA), Since 2010

Korean Transportation Association in America (KOTTA), Since 2006

### **TEACHING AREAS/COURSES PREPARED TO TEACH**

Enterprise Resource Planning (ERP)

Management Information Systems (MIS)

Operations and Supply Chain Management

Production Management

Logistics Engineering and Management

Transportation Planning

Sustainable Management/Operations/Planning

Quality Assurance and Control / Management

Operations Research and Simulation (Management Science)

Data Analysis and Modeling

Travel Demand Modeling

Geospatial Information Systems (GIS)

Project Management

Context Sensitive Solutions (CSS)