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Education
- * PhD, Civil Engineering, University of Illinois at Urbana & Champaign, 1987.
- * MBA, Department of Transportation and Communication Management, National Cheng Kung University, 1980.
- * BA, Department of Transportation and Communication Management, National Cheng Kung University, 1978.

Area of Specialty
- Pricing and Revenue Management, Management Science, Risk Management, Logistics Management.

Publications
1. Journal Papers (English):
2. 1. Hu, S-R., Li, C-S., and Lee, C-K. (2012) "Model Crash Frequency at Highway-Railroad Grade Crossings Using Negative Binomial Regression", Journal of the Chinese Institute of Engineers (JCIE), Vol. 35, Iss. 7, pp. 841-852. [SCI]
3. 2. Hu, S-R., Li, C-S., and Lee, C-K. (2011) "Casualty Risk Assessment of Railroad Grade Crossing Crashes by Using Zero-inflated Poisson Models", Journal of Transportation Engineering, Aug, PP.527-537. [SCI]
4. 3. Hu, S-R., Li, C-S., and Lee, C-K. (2010) "Investigation of key factors for accident severity at railroad grade crossings by using a logit model", Safety Science, V.48, N.2, PP.186-194. [SCI]
5. 4. Tsai, T-H, Lee, C-K, and Wei, C-H. (2009) "Neural network based temporal feature models for short-term railway passenger demand forecasting", Expert Systems with Applications, V.36, PP.3728-3736. [SCI]
6. 5. Lee, C-K. and Hu, S-R. (2007) "Accident risk at a railway level crossing", Journal of Eastern Asia Society for Transportation Studies, V.7, PP.53-61.
7. 6. Tsai, T-H, Lee, C-K, and Wei, C-H (2005) "Design dynamic neural networks to forecast short term railway passenger demand", Journal of Eastern Asia Society for Transportation Studies, V.6, PP.1651-1666.
8. 7. Lee, C-K, Lin, T-D and Lin, C-H (2005) "Pattern analysis of the booking curve of an intercity railway", Journal of Eastern Asia Society for Transportation Studies, V.6, PP.303-317.
9. 8. Lee, C-K, and Tsai, T-H (2004) "Demand responsive pricing method for the product line of Taiwan high-speed rail", Journal of Transportation Research Board, TRR1863, PP.1-8. [SCI]
10. 9. Lee, C-K and Chen, C-H (2003) "Scheduling of train driver for Taiwan Railway Administration", Journal of Eastern Asia Society for Transportation Studies, V.5, PP.292-.
11. 10. Tsai, T-H, Lee, C-K, and Wei, C-H (2003) "An artificial neural networks approach to forecast short-term railway passenger demand", Journal of Eastern Asia Society for Transportation Studies, V.5, PP.212-.
12. 11. Lee, C-K, Chen, C-H, and Chang, F (2003) "Simulation analysis on the dispatching operation of rail rapid transit", Journal of Eastern Asia Society for Transportation Studies, V.5, PP.323-.
13. 12. Lee, C-K and Hseih, W-J (2001) "A service design model for a high speed rail line", Journal of Eastern Asia Society for Transportation Studies, V.4, N.1, PP.107-121.
14. 13. Lee, C-K, and Sun, C-H (2000) "A simulation study on the energy saving effect of train

operation", Transportation Planning Journal, V.30, N.4, PP.237-251. [TSSCI]

15. 14. Lee, C-K (1997) "The minimum headway of a rail line", Journal of Eastern Asia Society for Transportation Studies, V.2, N.1, PP.313-324.

16. 15. Kao, C, Lee, C-K, and Chen, C-Y (1997) "Overview of OR practice in Taiwan companies", Journal of Operational Research Society. V.48, PP.569-575. [SSCI]

17. 16. Lee, C-K and Hsieh, W-J (1995) "Testing of train dispatching models", Journal of Eastern Asia Society for Transportation Studies, V.1, N.1, PP.159-169.

18. 17. Lee, C-K and K-I Yang (1994) "Network design of one-way streets with simulated annealing", Papers in Regional Science. V.73, N.2, PP.119-134. [SSCI]

19. 18. Lee, C-K (1994) "A multiple-path routing strategy for vehicle route guidance systems", Transportation Research-C. V.2, N.3, PP.185-195. [SCI]

20. Journal Papers (Chinese):

21. 1. Lin, D-H, Sun, C-S, Lee, C-K, Chang, K-K, and Wu, S-R (2017) "Safety Management System for Railway Industry- a Review" Sinotech. Org. Journal. V.136, PP.35～43.

22. 2. Lin, D-H, Sun, C-S, Jong, J-C, Lee, C-K, Chang, K-K, and Wu, S-R (2014) "Risk treatment of railroad crossings for Taiwan Railway Administration- a case study on obstacle detection system" Transportation Planning Journal. V.43, N.3, PP.63～88. [TSSCI]

23. 3. Jong, J-C, Hwang, H-S, Lee, C-K, Lai, Y-C, Lin, J-K, and Liu, J-R (2012) "Rail capacity analysis for urban rapid transit system- a case study for the Banqiao-Nangang line of Taipei MRT system", Journal of Chinese Institute of Transportation. V.24, N.1, PP.113～134. [TSSCI]

24. 4. Tsai, T and Lee, C-K (2012) "A hybrid predicting procedure based on ARIMA and exponential smoothing models: applications for railway demand forecasting" , Journal of Chinese Institute of Transportation. V.24, N.1, PP.89～112. [TSSCI]

25. 5. Jong, J-C, Lee, C-K, Hwang, H-S, Lin, K-S, and Liu, J-R (2011) "A study on models of train reliability analysis for Taiwan Railways Administration", Journal of Chinese Institute of Transportation. V.23, N.3, PP.389～410. [TSSCI]

26. 6. Lee, C-K, Jong, J-C, Lin, D-H, Chang, S-L, Chang E-F, Chen, I-C, Chang, K-K, and Wu, H-J (2009) "A study of the safety performance of Taiwan Railways Administration ", Transportation Planning Journal. V.38, N.4, PP.381～406. [TSSCI]

27. 7. Chen, C-H and Lee, C-K (2008) "A simulation model for metro operations using object-oriented modeling techniques", Journal of Chinese Institute of Transportation. V.20, N.2, PP.147～176. [TSSCI]

28. 8. Tsai, T-S, Lee, C-K, and Yew, C-Y (2008) "Influences of update fashion and data transformation to time series models in short-term railway passenger demand forecasting", Journal of Chinese Institute of Transportation. V.20, N.2, PP.177～200. [TSSCI]

29. 9. Jong, J-C, Lee, C-K, Chang, S-L, Chang, E-F, Lin, K-S, and Liu, J-R (2006) "Rail capacity analysis for Taiwan railway system- a case study of Keelung to Hsinchu section", Journal of Chinese Institute of Transportation. V.18, N.3, PP.233～264. [TSSCI]

30. 10. Jong, J-C, Lee, C-K, Chang, S-L, Chang, E-F, Lin, K-S, and Liu, J-R (2006) "Development and analysis of three-aspect signal close-in Time formula for Taiwan Railway Administration", Journal of Chinese Institute of Transportation. V.18, N.2, PP.183～203. [TSSCI]

31. 11. Tsai, T-H, Lee, C-K, and Wei, C-H (2006) "Artificial neural networks for short-term railway passenger demand forecasting", Transportation Planning Journal. V.35, N.4, PP.頁475～505. [TSSCI]

32. Conference Papers (English):

33. 1. Hu, S-R, Hsieh, A-C, and Lee, C-K (2013) Modeling crash frequency at highway-railroad grade crossings using a two-stage classification and regression tree method, The 10th EASTS Conference, Taipei, Taiwan.

34. 2. Hu, S-R, Lin, J-P, and Lee, C-K (2013) Exploring risk factors of crash and gate breaking frequency of heavy vehicle at highway-railroad grade crossings using a three-layer hierarchical approach, The 10th EASTS Conference, Taipei, Taiwan.

35. 3. Jone, J-C, Lin, T-H, Suen, C-S, Lee, C-K, Chen, I-C, and Wu, H, (2011) Using fault tree analysis

to identify the failures of level crossing protection devices, The 4th International Conference on Safety and Security Engineering, Antwerp, Belgium.

36. 4. Hu, S-R, Lai, Y-C, Jeng, P-C, and Lee, C-K (2011) Causality analysis of hazardous situations at railway level crossings, The 11th Global Level Crossing Symposium, Tokyo, Japan.
37. 5. Jong, J-C, Lin, T-H, Lee, C-K, and Hu, H-L (2011) The analysis on train reliability of Taiwan High Speed Rail, The 12th International Conference on Computer System Design and Operation in the Railway and other Transit Systems, Beijing, China.
38. 6. Tsai, T-H, Wei, C-H, Lee, C-K (2010) A Temporal Case-Based Procedure for Railway Cancellation Forecasting, The 8th Asia Pacific Transportation Development Conference, Tainan, Taiwan, R.O.C.
39. 7. Hu, S-R, Li, C-S and Lee, C-K (2010) Modeling traffic collisions at highway-railroad grade crossings using negative binomial regression, Transportation Research Board 89th Annual Meeting, Washington D.C., U.S.A.
40. 8. Lee, C-K, Jong, J-C, and Chang, E-F (2009) A capacity analysis on Taiwan high speed rail using a periodic timetabling method, International Conference of the Eastern Asia Society for Transportation Studies, Surabaya, Indonesia.
41. 9. Hu, S-R and Lee, C-K (2008) Analysis of accident risk at rail-road grade crossing, Transportation Research Board 87th Annual Meeting, Washington D.C., U.S.A.
42. 10. Lee, C-K and Hu, S-R (2007) Accident risk at a railway level crossing, International Conference of Eastern Asia Society for Transportation Studies, Dalian, China.
43. 11. Tsai, T-H, Lee, C-K And Wei, C-H （2006） Design neural network based causal models for short-term railway passenger demand forecasting, 26th International Symposium on Forecasting, Santander, Spain.
44. 12. Tsai, T-H, Lee, C-K and Wei, C-H, （2005）, Short-term railway passenger demand forecasting: A comparison between temporal and historical perspectives via multi-layer feed-forward neural network, International Conference on Intercity High Speed Ground Transport, Taipei, Taiwan, R.O.C.
45. 13. Lee, C-K, Hsieh, H and Chang, Y (2005) "The integrated scheduling and rostering problem of train driver using Genetic algorithm", International Conference on Intercity High Speed Ground Transport, Taipei, Taiwan, R.O.C.
46. 14. Tsai, T-H, Lee, C-K and Wei, C-H. (2005) "Short-term railway passenger demand forecasting via a parsimonious multi-layer feed-forward neural network", 25th International Symposium of Forecasting, San Antonio, USA.
47. 15. Tsai, T-H, Lee, C-K and Wei, C-H. (2005) "A supplementary approach for short-term railway passenger demand forecasting via artificial neural networks", The 10th Conference on Artificial Intelligence and Applications, Kaohsiung, Taiwan.
48. 16. Lee, C-K (2004) "The integrated scheduling and rostering problem of train driver using Genetic algorithm," The 9th International Conference on Computer-Aided Scheduling of Public Transport (CASPT), San Diego, U.S.A.
49. 17. Tsai, T-H, Lee, C-K, and Wei, C-H. (2004) " Short-term railway passenger demand forecasting," World Conference on transport Research. Istanbul, Turkey.
50. 18. Tsai, T-H, Lee, C-K, and Wei, C-H. (2004) "Application of feed-forward neural networks and Holt-winters models to forecasting short-term railway passenger demand," The 1st Sino-International Symposium on Probability, Statistics, and Quantitative Management. Taipei, Taiwan.

Dissertation
- Lee, C-K (1987) "Implementation and Evaluation of Network Equilibrium Models of Urban Residential Location and Travel Choices," Ph.D. University of Illinois at Urbana & Champaign.

Professional Certifications
1. * Foundation Certificate in Logistic Management, No. 20140863, Taiwan Association of

Logistics Management. 2014.
2. * Foundation Certificate in Warehousing and Transportation Management, No. 20140104, Taiwan Association of Logistics Management. 2014.
3. * Business Administration, No: 67-773, Examination Yuan, Taiwan, 1978.
4. * Railway Operation Management, No: 67-Railway-43, Examination Yuan, Taiwan, 1978.

Professional Experience
1. * Visiting Research Fellow at Tokyo University, Japan, 1998-1999.
2. * Visiting Scholar at Transport Research Laboratory, Department of Transport, UK, 1992-1993.

Grants
1. 1. Ministry of Science and Technology, No: MOST 104-2410-H-218-019-MY2, "Development of Bi-level Optimization Model for Pricing railway infrastructure" 2015/8-2017/7. [NT$978,000]
2. 2. Ministry of Science and Technology, No: MOST 103-2410-H-218-015, "Development of Integrated Profit Generating Capacity System and Access Charge Methodologies" 2014/8-2015/7. [NT$472,000]
3. 3. National Science Council, No: NSC NSC 102-2410-H-218 -012 , "Development of the Optimization Framework to Determine the Optimal Balance between Metro Efficiency and Stability," 2013/8 - 2014/7. [NT$ 400,050]
4. 4. National Science Council, No: NSC 101-2410-H-218 -021, "Development of the Evaluation Process and Models for Metro System Service Stability and Efficiency," 2012/8 - 2013/7. [NT$ 378,200]
5. 5. National Science Council, No: NSC 98-2410-H-218-029-MY3, "Efficiency and Safety Analyses on the Highway-Railway Level Crossings in Taiwan," 2009/8 - 2012/7. [NT$1,698,000]
6. 6. National Science Council, No: NSC99-2221-E-006, "Assessment of Advanced Traffic Management System at Railway Level Crossing," 2010/8 - 2011/7. [NT$474,000]
7. 7. National Science Council, No: NSC 98-2221-E-006-154, "Driver's driving behavior at Railway Level Crossing," 2009/8 - 2010/7. [NT$488,000]
8. 8. National Science Council, No: NSC95-2415-H-218-002-MY3, "Risk Analysis on Railway Level Crossing," 2006/8 - 2009/7. [NT$3,015,000]
9. 9. National Science Council, No: NSC94-2416-H-006-016, "Pricing and Service Design Models of Intercity Railway," 2005/8 - 2006/7. [NT$473,000]

Honors and Awards
1. * The Best Paper, Continuous section rail capacity model for Taiwan railway, Chinese Institute of Transportation, 2012.
2. * Teacher of the year, Cheng Kung University, 2005.
3. * The Best Paper, Simulation of rapid transit operation strategies, International Railway Transport Conference, 2000.
4. * The Best Paper, A bilevel mathematical programming model for train service design of Taiwan high speed rail, Transportation Network Conference, Chinese Institute of Transportation, 1999.
5. * The Best Paper of the Year, Estimation of train running time, Chinese Institute of Transportation, 1998.
6. * A Member of Phi Dau Phi Scholastic Honor Society, National Cheng Kung University, 1980.