Kyosang Hwang

Department of Industrial & Systems Engineering
KAIST
291 Daehak-ro, Yuseong-gu
Daejeon, 34141, KOREA
E-mail: kyosanghwang@kaist.ac.kr
Tel: (+82) 42-350-3166

Research Interests

Healthcare service system
Optimization
Location problem
Discrete choice models

Education

B.S., Korea Advanced Institute of Science and Technology, Aug 2011 Daejeon, Korea
Bachelor of Science and Engineering in Industrial & Systems Engineering

M.S., Korea Advanced Institute of Science and Technology, Aug 2013 Daejeon, Korea
Master of Science and Engineering in Industrial & Systems Engineering. Thesis Title: *Study on the way of identifying central nodes using node property in epidemic disease spreading*. Thesis Supervisor: T. Lee (Industrial & Systems Engineering, KAIST)

Award

Best Paper Award, The Korean Federation of Science and Technology Society, July, 2015 (Hwang, K., Lee, T. and Lee, H.-R., "Epidemic Disease Spreading Simulation Model Based on Census Data," published in Journal of the Korean Institute of Industrial Engineers, 40(2):163-171, 2014)

Journal Publication

1. "Designing robust rollout plan for better rural perinatal care system in Korea," Jang, H., Hwang, K., Lee, T., & Lee, T. *European Journal of Operational Research*, 274(2):730-742, 2019

2. "The effect of geographic units of analysis on measuring geographic variation in medical services utilization," Kim, AM., Park, JH., Kang, S., Hwang, K. and Lee, T. and Kim, Y., *Journal of Preventive Medicine and Public Health*, 49(4):230–239, 2016

3. "Epidemic Disease Spreading Simulation Model Based on Census Data," Hwang, K., Lee, T. and Lee, H.-R., *Journal of the Korean Institute of Industrial Engineers*, 40(2):163–171, 2014

Working Paper

1. "A Location Model with Endogenized Choice Model for Medically Underserved Areas in Korea: A case study for the delivery," Hwang, K. and Lee, T.

Conference Proceedings	1. "A Location Problem for Medically Under-served Areas in Korea," Jang, H., Hwang, K., Lee, T., Kim, M., Shin, H., and Lee, T., *3rd International Conference on Health Care Systems Engineering*, Florence, Italy, May 25, 2017
	2. "A choice model for estimating realized accessibility: case study for obstetrics care in Korea," Hwang, K., Jang, H., Lee, T., Kim, M., Shin, H., and Lee, T., *3rd International Conference on Health Care Systems Engineering*, Florence, Italy, May 25, 2017.
	3. "Identifying superspreaders for epidemics using R0-adjusted network centrality," Lee, T., Lee, H.-R., and Hwang, K., *Winter Simulation Conference*, Washington D.C., USA, December 8–11, 2013
Conference Presentations	1. "A choice model for estimating realized accessibility: case study for obstetrics care in Korea," Hwang, K. and Lee, T., *2017 KIIE Annual Spring Conference*, Yeosu, Korea, April 26–29, 2017
	2. "Epidemic Simulation Model by using Census Data," Hwang, K., Lee, H.-R. and Lee, T., *2013 KIIE Annual Spring Conference*, Yeosu, Korea, May 24–25, 2013
	3. "R0-adjusted Network Centrality to Identify Superspreaders of Epidemic Disease," Lee, H.-R., Hwang, K. and Lee, T., *2013 KIIE Annual Spring Conference*, Yeosu, Korea, May 24–25, 2013
	4. "Identifying central nodes in pandemic disease spreading network," Hwang, K. and Lee, T., *2012 KIIE Annual Fall Conference*, Ansan, Korea, November 2, 2012
Research Projects	1. 의료정책 효과 시뮬레이션 모형 개발 연구(2018), 국민건강보험공단, Nov 2018 – Nov 2019
	2. 상급종합병원 지정·평가 체계 개선 연구용역, 건강보험심사평가원, June 2018 – May 2019
	3. 2018 의료취약지 모니터링 연구, 보건복지부, April 2018 – Nov 2018
	4. 응급의료 중장기 발전방안, 보건복지부, June 2017 – Jan 2018
	5. 건강보험 의료의용지도 (KNHI-Atlas) 구축 3차 연구, 국민건강보험공단, June 2017 – Dec 2018
	6. 2017년 의료취약지 모니터링, 보건복지부, April 2017 – Nov 2017
	7. 2016 의료취약지 모니터링 연구, 보건복지부, May 2016 – Nov 2016
	8. 건강보험의료이용지도(KNHI-ATLAS) 구축, 국민건강보험공단, Mar 2016 – Dec 2016

9. Health Map 서비스를 위한 환자 의료이용지도 구축, 국민건강보험 공단, June 2015 – Dec 2015

10. 2015년 의료취약지 모니터링, 보건복지부, May 2015 – Nov 2015

11. 2014년 의료취약지 모니터링, 보건복지부, July 2014 – Nov 2014

12. 응급의료기관 기능개편 세부기준 마련, 보건복지부, Mar 2014 – Sep 2014

13. 독거 중 심장 돌연사 방지를 위한 모니터링 및 경보 시스템, KAIST, Mar 2014 – Dec 2014

14. 수도권 외상수요분석 및 외상진료체계 구축, 보건복지부, July 2012 – Oct 2012

15. Modeling & Simulation for Enhancement of Korea's Pandemic Response Capability, Korea National Research Foundation of Korea (NRF), Sep 2011 – Aug 2015