Kyungchan Park

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EDUCATION

Henry B. Tippie College of Business, University of Iowa, Iowa city, Iowa

Ph.D. candidate in Business Analytics **Aug. 2017 – Current**

Completed Course Requirements and Passed the Qualifying Exams for the doctoral degree

PHD'S THESIS: "Strengthening Convex Relaxations with Quadratic Equality Constraints"

ADVISOR: Dr. Kurt M. Anstreicher and Dr. Samuel A. Burer

Yonsei School of Business, Yonsei University, Seoul, South Korea

Ph.D. ABD in Business Administration – Operations Research **Mar. 2014 – Aug. 2017**

Completed Course Requirements and Passed the Qualifying Exams for the doctoral degree

MINORS (3): OPERATIONS MANAGEMENT, INFORMATION & INDUSTRIAL ENGINEERING, AND MATHEMATICS

ADVISOR: Dr. Seongmoon Kim

Yonsei School of Business, Yonsei University, Seoul, South Korea

M.S. in Business Administration – Operations Research **Mar. 2012 – Feb. 2014**

MASTER'S THESIS: "Developing an Investment Framework based on Markowitz's Portfolio Selection Model Integrated with EWMA: Case Study in Korea under Global Financial Crisis"

ADVISOR: Dr. Seongmoon Kim

Yonsei School of Business, Yonsei University, Seoul, South Korea

Bachelor of Business Administration **Mar. 2006 – Feb.2012**

RESEARCH INTEREST

Analytics, operations research, management science, and data science
Convex relaxation, copositive and semidefinite programming
Decision making under uncertainty
Financial engineering; Portfolio optimization
Mechanism design

AWARDS

Best Paper Award, the 2017 Fall competition of KORMS	Oct, 2017
Honors, Yonsei University	Fall, 2010; Fall, 2009; Spring, 2009
Business MVP, Yonsei School of Business	Spring, 2009

PUBLICATIONS

"A Strengthened SDP Relaxation for Quadratic Optimization Over the Stiefel Manifold"
Samuel A. Burer and Kyungchan Park
https://doi.org/10.48550/arXiv.2208.03125, 2022.08, *Journal of Optimization Theory and Applications,* submitted

"Convex hull representation for bounded products of variables"
Kurt M. Anstreicher, Samuel A. Burer and Kyungchan Park
Journal of Global Optimization, 2021, Vol.80, pp.757-778.

"Weight vector analysis to portfolio performance with diversification constraints"
Kyungchan Park, Hongseon Kim and Seongmoon Kim
Korean Management Science Review, 2016, Vol.33, No.4, pp.51-64.

"Effects of Additional Constraints on Performance of Portfolio Selection Models with Incomplete Information: Case Study of Group Stocks in the Korean Stock Market"
Kyungchan Park, Jongbin Jung and Seongmoon Kim
Korean Management Science Review, 2015, Vol.32, No.1, pp.15-33.

"Developing an Investment Framework based on Markowitz's Portfolio Selection Model Integrated with EWMA: Case Study in Korea under Global Financial Crisis"
Kyungchan Park, Jongbin Jung and Seongmoon Kim
Journal of the Korean Operations Research and Management Science Society, 2013, Vol.38, No.2, pp.75-93.

"Optimal In-house Operations for Disaster Response: A survey and analysis"
Jongbin Jung, Hongseon Kim, Kyungchan Park, and Seongmoon Kim
The Journal of the Korean Institute of Communication Sciences, 2012, Vol.29, No.5, pp.80-91.

"Performance of the Markowitz's Portfolio Selection Model over the Accuracy of Expected Returns, Variances, and Covariances"
Hongseon Kim, Kyungchan Park, and Seongmoon Kim
2010 Spring Annual Conference of Korean Institute of Industrial Engineers, 2010.06, pp.1110-1113.

"In-sample Tangency Portfolio based Portfolio Forecasting"
Kyungchan Park, Hongseon Kim and Seongmoon Kim
Working paper

"Application of Convex Hull Representations for Bounds on Sums of Products"
Kurt M. Anstreicher and Kyungchan Park
Working paper

TEACHING EXPERIENCE

Operations Management, Teaching Assistant	2021 - 2022 (4 semesters)
Information Systems, Teaching Assistant (including head TA)	2018 - 2022 (9 semesters)
Business Computing Essential, Teaching Assistant	2017 (1 semester)
START UP 401: Startup Consulting, Teaching Assistant	2015 - 2016 (2 semesters)
START UP 101: Freshman Seminar, Teaching Assistant	2015 - 2016 (2 semesters)
Decision Making Under Uncertainty (undergraduate), Teaching Assistant	2016 (1 semester)
Management Science (undergraduate), Teaching Assistant	2012 - 2016 (5 semesters)
Management Science (MBA), Teaching Assistant	2012 - 2016 (2 semesters)
Decision Making Under Uncertainty (MBA), Teaching Assistant	2015 (1 semester)
Business Simulation, Teaching Assistant	2013 - 2014 (2 semesters)

CONFERENCE PRESENTATIONS/POSTER

"A Strengthened SDP Relaxation for Quadratic Optimization Over the Stiefel manifold"
Conference presentation at *2022 International Conference on Continuous Optimization (ICCOPT)*, Bethlehem, PA, 2022

"Convex Hull Representations for Bounded Products of Variables"
Conference poster session at *2019 CRM/DIMACS Workshop on MINP*, Montreal, Québec, Canada, 2019

"Convex Hull Representations for Bounded Products of Variables"
Conference poster session at *2019 IPCO Conference*, Ann Arbor, MI, 2019

"In-sample Tangency Portfolio Based Portfolio Forecasting"
Conference presentation at *2018 INFORMS Annual Meeting*, Phoenix, AZ, 2018

"Structural approach to portfolio analysis with diversification constraints"
Conference presentation at *2016 INFORMS Annual Meeting*, Nashville, TN, 2016

"Developing an Estimation of Expected Returns for a Portfolio Selection Model by Utilizing Markov Chain"
Conference presentation at *18th International Conference on Industrial Engineering (IJIE)*, Seoul, Korea, 2016

"A Preliminary Study on the Optimal Schedule for Interconnected Microgrid Operation with Residential Demand"
Conference presentation at *18th International Conference on Industrial Engineering (IJIE)*, Seoul, Korea, 2016

"Developing an Investment Framework based on Markowitz's Portfolio Selection Model Integrated with EWMA: Case Study in Korea under Global Financial Crisis"
Conference presentation at *2012 INFORMS Annual Meeting*, Phoenix, AZ, 2012

WORK EXPERIENCE

Research Project - funded by Korean Ministry of Education, Science and Technology
Researcher — Sep. 2016 – Aug. 2017
- Fostering Startup Professionals based on Creativity, Entrepreneurship, and Sustainability

Research Project - funded by Korean Ministry of Education, Science and Technology
Research Assistant — May. 2011 – Aug. 2017
- Establishment of the Framework for the Implementation of the Markowitz Portfolio Selection Model in the Stock Market and Its Performance Evaluation

Research Project - funded by Korea Institute of Energy Technology Evaluation and Planning
Research Assistant — Sep. 2012 – June. 2013
- Development of Multi-Agent System for Grid-connected Microgrid Operation using RTDS

RECIPIENT OF SCHOLARSHIP/FLLOWSHIP

Graduate College Post-Comprehensive Research Fellowship	2021 (1 semester)
Graduate College Iowa Recruitment Fellowship	2017 - 2022 (5 years)
YSB Scholarship	2014 - 2016 (6 semesters)
Research Assistantship, Teaching Assistantship	2012 - 2015 (6 semesters)
Office Assistantship	2015 (1 semester)
University Designated Scholarship, Internal Scholarship	2006 - 2014 (9 semesters)
LG Yonam Foundation Scholarship	2012 - 2013 (3 semesters)