

## Keungoui KIM

Humanities, Arts, and Social Sciences Division (Science, Technology, and Policy Major)  
Underwood International College, Yonsei University  
Seoul, South Korea  
awekimm@gmail.com (or awekim@yonsei.ac.kr)

### EMPLOYMENT

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#### **Yonsei University, Korea**

Humanities, Arts, and Social Sciences Division (HASSD) 2025.03.01 ~  
Underwood International College  
Assistant Professor (Tenure-track)

#### **Handong Global University, Korea**

School of Applied Artificial Intelligence 2021.09.01 ~  
Assistant Professor (Tenure-track) 2025.2.28

#### **University College Dublin, Ireland**

Spatial Dynamics Lab 2020.03.16 ~  
Post-doc Researcher 2021.08.31

#### **University Paris-Saclay (former University Paris-Sud), France**

RITM (Réseaux Innovation Territories Monodialibation) 2019.02.18 ~  
Post-doc Researcher 2020.03.13

#### **Asian Research Network, Korea**

Associate Research Fellow (Part-time) 2015.04.01 ~  
2016.02.29

#### **Science and Technology Policy Institute, Korea**

Office of Global Policy 2014.07.01 ~  
Associate Research Fellow (Part-time) 2015.03.31

#### **Hyundai Motor Company, Korea**

Research and Development Center 2012.07.16 ~  
Engineering Researcher 2014.02.28

### EDUCATION

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#### **Seoul National University, Seoul, Korea**

Technology of Management, Economics, and Policy Program 2019.02.26  
Ph.D. in Economics (2016.03.01)  
Dissertation Title: “Research on firm-level diversification framework with respect to measurements and activities: Focused on the empirical case of pharmaceutical industry”

#### **Seoul National University, Seoul, Korea**

Technology of Management, Economics, and Policy Program 2016.02.26  
M.Sc. in Economics (2014.03.01)  
Dissertation Title: “A Study on Technology Standardization Method using Network Analysis: Focused on Wireless Communication Technology Layer of Internet of things”

Handong Global University, Pohang, Korea

2012

B.Sc. in Mechanical Engineering

B.Sc. in Electric Engineering

## RESEARCH INTERESTS

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- *Topics*: Interdisciplinary Science-Technology, Smart Specialization, Regional Innovation, Socio-technology System Transition, Knowledge Spillover, Public Policy (Real-estate, IT governance, Health, Crime), Digital Technologies, Entrepreneurship, Industry Network
- *Methodologies*: Econometric Analysis, Text Mining & Natural Language Processing, Machine Learning, Network Analysis, Spatial Regression, Structural Equation Modelling, Meta Frontier Analysis, Index development, Policy (program) evaluation, Computational Simulation

## TEACHING INTERESTS

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- Subject courses: (1) Science and Technology Policy, (2) AI & Social Change, (3) Computational Social Science, (4) Socio-technical System Transition, (5) Strategic Management of Intellectual Property Right, (6) Regional Innovation, (7) Economics of Technology Innovation, (8) Applied Econometrics, (9) Knowledge Management, (10) International Development and STI policy
- Method courses: (1) Data Science (R, SQL, Python), (2) Advanced Statistics, (3) Python, R, HTML Programming, (4) Text Mining & Natural Language Processing, (5) AI Project Management, (6) Data Visualization, (7) Computational Social Science Analytics, (8) Network analysis and Social Change

## LANGUAGE

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**Korean** (Mother-tongue)

**English**

Fluent in speaking, listening, writing, and working

**Bahasa Indonesia**

Intermediate level of speaking and listening  
(10 years of living in 1995-2005).

## INTERNATIONAL PUBLICATIONS (SSCI)<sup>1</sup>

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1. (Accepted) Hur, J., Lee, S., Hwang, J., **Kim, K.\*** 2025. Who to collaborate? Exploring knowledge complementarity in collaborative invention: Comparing patent performance of engineers and design engineers. *Technological Forecasting and Social Change* [SSCI, JCR Q1, IF: 13.3] 2025/12.
2. (Accepted) Kim, Y., **Kim, K.** 2025. Understanding the Spatial Co-Occurrence of Different Crime Types and Brokerage Crime in NYC Block Groups. *American Journal of Criminal Justice* [SSCI, JCR Q1, IF: 8.6] 2025/12.
3. (in press) **Kim, K.**, Koger, D., Lee, J., Maliphol, S., Lee, C. 2025. Mapping Knowledge Recombination for Innovation: Cognitive Proximity and Business Method Patents in the Digital Era. *Journal of Knowledge Management* [SSCI, JCR Q1, IF: 9.5] 2025/10.
4. **Kim, K.**, Shin, H., Kogler, K. 2025. Science Space: The Evolution of Scientific Knowledge Specializations Across European Regions. *ZFW-Advances in Economic Geography* [SSCI, JCR Q2, IF: 2.3] 2025/11. (<https://doi.org/10.1515/zfw-2025-0058>)

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<sup>1</sup> Research specifics in ORCID: <https://orcid.org/0000-0002-0839-8813> / \*(Corresponding)

5. **Kim, K.**, Kogler, D., Hur, J. 2025. Mapping regional knowledge spaces via BERTopic and BERT similarity: the semantic proximity of quantum science in the overall scientific publication landscape. *Scientometrics* [SSCI, JCR Q2, IF: 4.1] 2025/9. (<https://doi.org/10.1007/s11192-025-05430-y>)
6. Hur, J., Kim, G., Hwang, J., **Kim, K.\*** 2025. Unravelling the Impact of Design-engineering Capability on Firm Performance. *Innovation: Organization & Management* [SSCI, JCR Q2, IF: 1.8] 2025/8. (<https://doi.org/10.1080/14479338.2025.2547575>)
7. Hur, J. **Kim, K.\*** 2026. The Impact of Design and Technology Capability on Patent Quality: Exploring the Role of Interdisciplinary Inventors and Their Technological Knowledge. *R&D Management* [SSCI, JCR Q1, IF: 5.7] 2026/1. (<https://doi.org/10.1111/radm.70005>)
8. Wanzenböck, I., Rochetta, S., Kogler, D., **Kim, K.** 2025. The emergence of new regional technological specialisations: Exploring the role of organisations and their technological network structure. *Industry and Innovation* [SSCI, JCR Q1, IF: 3.4] 2025/5. 32(5): 513-539 (<https://doi.org/10.1080/13662716.2024.2385575>)
9. **Kim, K.**, Kim, Y. 2024. A Machine Learning Approach to Analyzing Crime Concentration: The Case of New York City. *Justice Quarterly* [SSCI, JCR Q1, IF: 2.6] 2024/10. (<https://doi.org/10.1080/07418825.2024.2401938>)
10. **Kim, K.**, Shin, D., Maliphol, S., Lee, C. 2024. Exploring the interplay between social distancing, innovation adoption, and privacy concerns amid the COVID-19 crisis. *Science and Public Policy* [SSCI JCR Q2, IF: 2.087] 2024/12. 51 (6): 1257-1266 (<https://doi.org/10.1093/scipol/scae024>)
11. Lee, J., **Kim, K.**, Park, G. 2024. Influence of Business Models on the Sustainable Transition of Shared Mobility Services in China and South Korea. *Asia Pacific Business Review* [SSCI, JCR Q2, IF: 2.9] 2024/6. (<https://doi.org/10.1080/13602381.2024.2358952>)
12. **Kim, K.**, Chiara, F., Kogler, D. 2024. Smart Specialisation Strategies and Regional Knowledge Spaces: How to Bridge Vision and Reality<sup>2</sup>. *Regional Studies* [SSCI, JCR Q1, IF: 5.1]. 2024/6. 58 (12): 2501-2517 (<https://doi.org/10.1080/00343404.2024.2355985>)
13. **Kim, K.**, Kogler, D., Maliphol, S. 2024. Identifying interdisciplinary emergence in the science of science: combination of network analysis and BERTopic. *Humanities and Social Sciences Communications* [SSCI, JCR Q1, IF: 3.5]. 2024/5. 11 (603): 1-15 (<https://doi.org/10.1057/s41599-024-03044-y>)
14. Hur, J., Chun, Y., Hwang, J., **Kim, K.\*** 2024. The moderating role of design innovation in the relationship between technology complexity and firm performance. *Technology Analysis and Strategic Management* [SSCI, JCR Q2, IF: 3.4]. 2024/3. (<https://doi.org/10.1080/09537325.2024.2336555>)
15. Hur, J., Hwang, J., **Kim, K.\*** 2024. The role of design engineers: Evidence from intra-firm knowledge and collaboration networks. *Plos One* [SCIE, JCR Q2, IF: 3.24] 2024/2. 19 (2): e0298089 (<https://doi.org/10.1371/journal.pone.0298089>)
16. **Kim, K.**, Kogler, D., Zabetta, M. 2023. New Cooperation and Novel Innovations: The Role of Regional Brokerage and Collaboration Intensity. *European Planning Studies* [SSCI JCR Q1, IF: 3.777]. 2023/11. 32 (6): 1251-1272 (<https://doi.org/10.1080/09654313.2023.2291087>)
17. Kogler, D., Whittle, A., **Kim, K.**, Lengyel, B. 2023. Understanding Regional Branching: Knowledge Diversification via Inventor and Firm Collaboration Networks. *Economic Geography* [SSCI JCR Q1, IF:14.921] 2023/11. 99 (5): 471-498 (<https://doi.org/10.1080/00130095.2023.2242551>)
18. Shin, H., **Kim, K.**, Lee, J., Kogler, D. 2023. Inventors, firms and localities: insights into the nexus that forms and alters the evolution of regional knowledge spaces. *Cambridge Journal of Regions, Economy, and Society* [SSCI Q1, IF: 6.2] 2023/11. 16 (3): 511-528 (<https://doi.org/10.1093/cjres/rsad019>)

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<sup>2</sup> [https://awekim.shinyapps.io/SS\\_shiny\\_R/](https://awekim.shinyapps.io/SS_shiny_R/)

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19. Lee, C., Na, C., **Kim, K.\***. 2023. The effect of watching OTT late at night on sleep. *Sleep and Biological Rhythms* [SCIE, JCR Q3, IF:1.390] 2023/05. 21: 395-407 (<https://doi.org/10.1007/s41105-023-00459-z>)
  20. **Kim, K.**, Nonnis, A., Özyaygen, A., Kogler, D. 2023. Green-tech knowledge capacity/diversity and entrepreneurship in German regional economies. *International Entrepreneurship and Management Journal* [SSCI, JCR Q1, IF: 6.704] 2023/03. 19: 97-120 (<https://doi.org/10.1007/s11365-022-00808-3>)
  21. **Kim, K.**, Lee, J., Lee, C. 2023. Which innovation type is better for productivity efficiency? Comparison between product, process, organisational and marketing innovations using stochastic frontier and meta-frontier analysis. *Technology Analysis and Strategic Management* [SSCI, JCR Q2, IF: 3.4] 2023/01. 35 (1): 59-72 (<https://doi.org/10.1080/09537325.2021.1965979>)
  22. Nonnis, A., Bounfour, A., **Kim, K.** 2023. Knowledge spillovers and intangible complementarities: Empirical case of European countries. *Research Policy* [SSCI, JCR Q1, IF: 9.473] 2023/01. 52 (1): 104611 (<https://doi.org/10.1016/j.respol.2022.104611>)
  23. Shin, H., **Kim, K.**, Kogler, D. 2022. Scientific Collaboration, Research Funding, and Novelty in Scientific Knowledge<sup>3</sup>. *Plos One* [SCIE, JCR Q2, IF: 3.24] 2022/07. 17 (7): e0271678 (<https://doi.org/10.1371/journal.pone.0271678>)
  24. Lee, C., Shin, H., **Kim, K.**, Kogler, D. 2022. The effects of regional capacity in knowledge recombination on productivity gains. *Technological Forecasting and Social Change* [SSCI, JCR Q1, IF: 9.01] 2022/07. 180 July: 121669 (<https://doi.org/10.1016/j.techfore.2022.121669>)
  25. **Kim, K.**, Kogler, D., Lee, C., Kang, T. 2022. Changes in the knowledge effect on local labor market in the midst of regime transition: Evidence from France over 1986-2015. *Applied Spatial Analysis and Policy* [SSCI, JCR Q2, IF: 1.59] 2022/05. 16: 1255-1276 (<https://doi.org/10.1007/s12061-022-09444-4>)
  26. Kang, T., Maliphol, S., Kogler, D., **Kim, K.\*** 2022. Regional knowledge capabilities, entrepreneurial activity, and productivity growth: Evidence from Italian NUTS-3 regions. *International Regional Science Review* [SSCI, JCR Q3, IF:2.477] 2022/05. 45 (3): 293-320 (<https://doi.org/10.1177/01600176211034134>)
  27. Lee, J., Park, K., **Kim, K.\*** 2022. Transition failure strengthening regime stability in socio-technical systems: A case study of shared mobility market in South Korea. *Telematics and Informatics* [SSCI, JCR Q1, IF: 6.182] 2022/05. 70 (May): 101814 (<https://doi.org/10.1016/j.tele.2022.101814>)
  28. Kogler, D., Davies, R., Lee, C., **Kim, K.\*** 2022. Regional Knowledge Spaces: The Interplay of Entry-Relatedness and Entry-Potential for Technological Change and Growth. *Journal of Technology Transfer* [SSCI, JCR Q2. 5.783, IF: 6.320] 2022/03. 48: 645-668 (<https://doi.org/10.1007/s10961-022-09924-2>).
  29. **Kim, K.**, Lee, J., Kim, E. & Hwang, J. 2022. Related and unrelated product diversification and collaboration strategies: Comparison between the pharmaceutical and biopharmaceutical industries. *Journal of Product Innovation Management* [SSCI, JCR Q1, IF 6.987] 2022/02. 39 (4): 559-580 (<https://doi.org/10.1111/jpim.12620>).
  30. Lee, J., **Kim, K.\***, Kim, J., Hwang, J. 2022. The relationship between shared mobility and regulation in South Korea: A system dynamics approach from the socio-technical transitions perspective. *Technovation* [SSCI, JCR Q1, IF: 6.606] 2022/01. 109: 102327 (<https://doi.org/10.1016/j.technovation.2021.102327>)
  31. Lee, J., **Kim, K.\***, Park, G., Cha, N. 2021. The role of online news and social media in preventive action in times of infodemic from a social capital perspective: The case of the COVID-19 pandemic in South Korea. *Telematics and Informatics* [SSCI, JCR Q1, IF: 6.182] 2021/11. 64 (11): 101691 (<https://doi.org/10.1016/j.tele.2021.101691>)

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<sup>3</sup> Posted in LSE blog: <https://blogs.lse.ac.uk/impactofsocialsciences/2022/11/01/two-minds-better-than-one-does-research-funding-and-support-for-collaboration-lead-to-more-innovative-research/>

32. Jung, S., **Kim, K.**, Lee, C. 2021. The Nature of ICT in Technology Convergence: A Knowledge-based Network Analysis. *Plos One* [SCIE, JCR Q2, IF: 3.24] 2021/07. 16 (7): 1-20 (<https://doi.org/10.1371/journal.pone.0254424>)
33. **Kim, K.**, Jung, S., Hwang, J., Kim, E. 2021. The optimal diversification strategy in pharmaceutical industry: balance-centered or hetero-centered? *Science, Technology and Society* [SSCI, JCR Q4, IF: 1.173] 2021/05. 26(2): 1-24 (<https://doi.org/10.1177/09717218211005616>)
34. **Kim, K.**, Bounfour, A., Nonnis, A., Özaygen, A. 2021. Measuring ICT externalities and their contribution to productivity: A bilateral trade based approach. *Telecommunications Policy* [SSCI, JCR Q2, IF: 3.036]. 2021/03. 45 (2): 102085 (<http://doi.org/10.1016/j.telpol.2020.102085>).
35. **Kim, K.**, Jung, S. & Hwang, J. 2019. Technology Convergence Capability and Firm Innovation in the Manufacturing Sector: An Approach based on Patent Network Analysis. *R&D Management* [SSCI, JCR Q1, IF: 5.7]. 2019/09. 49(4): 595-606 (<https://doi.org/10.1111/radm.12350>).
36. Lee, J., **Kim, K.**, Shin, H., Hwang, J. 2018. Acceptance Factors of Appropriate Technology: Case of Water Purification Systems in Binh Dinh, Vietnam. *Sustainability* [SSCI, JCR Q2, IF: 3.245]. 2018/07. 10(7): 1-20 (<http://doi.org/10.3390/su10072255>)
37. **Kim, K.**, Jung, S., Hwang, J., Hong, A. 2018. A dynamic framework for analyzing technology standardization using network analysis and game theory. 2018/05. *Technology Analysis and Strategic Management* [SSCI, JCR Q2, IF: 3.4]. 30 (5): 540-555 (<http://dx.doi.org/10.1080/09537325.2017.1340639>).
38. Lee, C., Jung, S., **Kim, K.\***. 2017. Effect of a Policy Intervention on Handset Subsidies on the Intention to Change Handsets and Households' expenses in Mobile Telecommunications. *Telematics and Informatics* [SSCI, JCR Q1, IF: 6.182]. 2017/12. 34 (8): 1524-1531 (<https://doi.org/10.1016/j.tele.2017.06.017>).

#### INTERNATIONAL PUBLICATIONS (SCOPUS or ESCI)

1. Kogler, D., Kedron, P., **Kim, K.\*** 2025. The Firm-Location Nexus Examining Inventive Footprint and Technological Evolution of Nortel over the course of its “Boom and Bust”. *Evolutionary and Institutional Economics Review* [ESCI, JCR Q3, IF: 0.5] 2025/11. (<https://doi.org/10.1007/s40844-025-00315-4>)
2. Shin, H., Kogler, D., **Kim, K.\*** 2023. The Relevance of Scientific Knowledge Externalities for Technological Change and Resulting Innovation Citation Impact Across European Metropolitan Areas. *Review of Regional Research* [SCOPUS] 2023/06. (<https://doi.org/10.1007/s10037-023-00190-9>)
3. Kogler, D. & **Kim, K.** 2021. Following the paper trail: the UK scientific and technological knowledge space and its reliance on international knowledge spillovers. *Regional Studies, Regional Science* [SCOPUS]. 2021/12/17. 8 (1): 447-459. (<https://doi.org/10.1080/21681376.2021.2009907>)
4. Nonnis, A., Bounfour, A., Ozaygen, A., **Kim, K.**, Beliaeva, T. 2021. The combined contribution of intangible capital and global value chain participation to productivity. *International Journal of Intellectual Property Management* [SCOPUS]. 2021/02/19. 11 (1) (<http://doi.org/10.1504/IJIPM.2020.10032445>)
5. **Kim, K.**, Jung, S., Kim, E., Hwang, J. 2019. Which technology diversification index should be selected?: Insights for diversification perspectives. *Cogent Business & Management* [SCOPUS]. 2019/07. 6 (1): 1-18 (<https://doi.org/10.1080/23311975.2019.1643519>)

#### DOMESTIC PUBLICATIONS

1. Ahn, S., Moon, B., Park, S., Kim, S., **Kim, K.\*** 2025. A Study on Data Preprocessing and Prompt Engineering Methodologies Specialized for the Interpretation of Automobile Law Documents (자동차 법률 문서 해석에 특화된 데이터 전처리 및 프롬프트 엔지니어링 방법론 연구). *Journal of Korean Institute of Information Technology* [KCI]. 23(6): 31-40.



2. Choi, J., Oh, K., Jang, S., **Kim, K.\*** 2025. Predicting Bicycle Demand at the Station Level by Incorporating Station-Specific Spatial Features in Graph Convolutional Network Model (그래프 컨볼루션 네트워크 모델을 활용한 역별 공간 특성을 고려한 자전거 수요 예측). *Journal of the Korea Society of Digital Industry and Information Management* [KCI]. 21(1): 27-43.
3. Park, Y., Kim, D., Yoo, S., Bae, Y., **Kim, K.\*** 2024. Research on Prompt Engineering for Generative AI to Create Business Data Analysis Reports (비즈니스 데이터 분석 리포트 생성을 위한 생성형 AI 프롬프트 엔지니어링 연구). *Journal of Korean Institute of Information Technology* [KCI]. 22(11): 167-180.
4. Ahn, D., Kim, J., Sohn, J., **Kim, K.\*** 2024. MLB's on-base and out prediction model by pitcher and batter type using machine learning (머신러닝을 활용한 미국 프로야구의 투수 및 타자의 유형별 출루 및 아웃 예측 모델). *The Korean Society of Sports Science* [KCI]. 33(1): 655-665.
5. **Kim, K.**, Lee, J., Lee, C. 2021. Exploratory Analysis of Knowledge Structure and Evolutionary Trajectory in Korean Artificial Intelligence for Effective Technology Policy (효율적인 기술 정책 제안을 위한 한국 인공지능 지식 구조와 진화 궤적의 탐색적 분석). *Innovation Studies* [KCI]. 16(3): 139-172.
6. Park, C., Kim, D., Yoon, J., **Kim, K.**, Lee, J., & Hwang, J. 2018. A Study on Cooperation Model for Promoting Overseas Volunteering Program Based on Appropriate Technology Orienting University Students Participation: Focused on Institute for Global Social Responsibility in SNU (대학생 참여 중심의 적정기술 활동 활성화를 위한 산학단 협력모델 연구:서울대학교 글로벌사회공헌단 사례를 중심으로). *Journal of Appropriate Technology*, 4(1): 1-8.
7. Shin, H., Kim, J., Lee, J., **Kim, K.**, & Hwang, J. 2016. A Convergence Innovation System Approach for Sustainable Appropriate Technology: Identifying the innovation factors (지속가능한 적정기술을 위한 혁신 시스템: 혁신 요소의 탐색). *Journal of Appropriate Technology*, 2(1): 68-75.
8. **Kim, K.**, & Jung, S. 2017. A Study on Apartment Transaction Price Index Using Cluster Analysis: Focused on the case of Seoul (군집 분석을 활용한 아파트 실거래가격지수 연구: 서울시 사례를 중심으로). *Journal of Real Estate Analysis*, 3(1): 35-58 (<https://doi.org/10.30902/jrea.2017.3.1.35>).
9. **Kim, K.**, & Kim, Y. 2015. A Study on Forecasting Model for Apartment Housing Price Index Reflecting Model Uncertainty: Focused on BMS, BMA (모델의 불확실성을 반영한 아파트가격지수 예측 모형 연구: BMS, BMA 를 중심으로). *Journal of Real Estate Analysis*, 1(1): 27-52 (<https://doi.org/10.30902/jrea.2015.1.1e.27>).
10. **Kim, K.**, Jung, S., & Hwang, J. 2015. A Study on Technology Standardization Method Using Network Analysis: Focused on Wireless Communication Technology Layer of Internet of Things (네트워크 분석을 이용한 기술 표준화 방법론 연구: 사물인터넷 무선 통신 기술 계층을 중심으로). *Journal of Technology Innovation* [KCI]. 25 (3): 43-65 (<http://dx.doi.org/10.14383/SIME.2015.23.3.43>).

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## BOOK

- (Book Chapter) **Keungoui Kim**, Ahmed Bounfour, Nonnis Alberto, Altay Özeygen, 2024, "ICT Externalities", *Intangible Assets, Productivity and Economic Growth: Micro, Meso and Macro Perspective*.
- (Book Chapter) Ahmed Bounfour, **Keungoui Kim**, Tran Ngoc Phung, 2022, "Digital Platform Modelling: Delineating the Foundations of Their Business Models," In book of *Platforms and Artificial Intelligence, The Next Generation of Competences*.
- Jeong Hyop Lee, Sira Maliphol, **Keungoui Kim**, 2015, "STI Strategies and Action Planning in ASEAN," *Science and Technology Policy Institute (STEPI) Policy Report*.
- (Book Chapter) Korea Standard Association, 2015, "Next Standards 2016": Insight 04. The Value and Future of Technology Standard (written by **Keungoui Kim**, Sungdo Jung, and Junseok Hwang).

## INTERNATIONAL CONFERENCE PARTICIPATION

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- Hur, J., Lee, S., **Kim, K.** 2025. Cross-industry Mobility of Inventors and its Impact on Patent Novelty. 8th Research on Innovation, Science and Entrepreneurship Workshop (RISE8). Max Planck Institute for Innovation and Competition at Munich. December 15th.
- Kim, Y., **Kim, K.** 2025. Understanding the Spatial Co-Occurrence of Different Crime Types and Brokerage Crime in NYC Block Groups. American Society of Criminology at Washington, DC. November 14th.
- Kim, K.**, Kim, Y. 2024. Examining the Spatial and Temporal Patterns of Crime in Block Groups in New York City: A Machine Learning Approach. American Society of Criminology at San Francisco. November 14th.
- Kim, K.**, Hynes, R., Kogler, D. 2024. Identification of Specialized Science Fields Employing BERTopic Model<sup>4</sup>. GEOINNO 2024 at Manchester, UK. January 12th.
- Hur, J., Hwang, J., Kim, G., **Kim, K.\*** 2023. The Moderating Effect of Design-engineering Capability on the Relationship between Firms' Innovation Activity and Performance. IEEE ICTMOD 2023. November 24th.
- Hur, J., **Kim, K.\*** 2023. Technology Complexity and Firm Performance: the Moderating Effect of Design Innovation. 18th European Conference on Innovation & Entrepreneurship. September 21st.
- Hur, J., Hwang, J., **Kim, K.\*** Exploring the Role of Design-engineers in a Firm's Collaborative and Knowledge Network. Society of Interdisciplinary Business Research. June 2nd.
- Borja, S., **Kim, K.**, Yoon, H. Hwang, J. 2022. Mechanisms that Influence IT Governance Effectiveness: Empirical Analysis in Private and Public Sector in Colombia. PICMET 2022 at Portland, USA.
- Wanzenböck, I., Rocchetta, S., Kogler, D., **Kim, K.** 2022. Explaining the emergence of new regional technological specialisations: the role of organisations' network structure. DRUID 2022. DRUID. June 14<sup>th</sup>.
- Lee, J., **Kim, K.**, Kogler, D. 2022. Regional cooperation between Hong Kong and Shenzhen for synergies and complementarities: Focused on the scientific and technological knowledge space. DRUID 2022. DRUID. June 14<sup>th</sup>.
- Kim, K.**, Kogler, D., Zabetta, M. 2021. Knowledge Specialization and Novel Innovations: The Role of Regional Brokerage and Collaboration Intensity. DRUID 2021. DRUID. October 19<sup>th</sup>.
- Kim, K.**, Shin, H., Kogler, D. 2021. Relatedness and science change in region: The evolution of science space in EU regions. DRUID 2021. DRUID. October 19<sup>th</sup>.
- Shin, H., **Kim, K.**, Kogler, D. 2021. Science Collaboration, Research Funding, and Novelty in Scientific Knowledge. DRUID 2021. DRUID. October 20<sup>th</sup>.
- Kim, K.**, Kogler, D., Zabetta, M. 2021. New Cooperation and Novel Innovations: The Role of Regional Brokerage and Collaboration Intensity. 4<sup>th</sup> International Conference on Cluster Research. Rethinking Clusters. September 23<sup>rd</sup>.
- Wanzenböck, I., Rochetta, S., Kogler, D., **Kim, K.** 2021. Actors, networks and regional technological change. A network portfolio approach to explain the emergence of new technological specializations. 4<sup>th</sup> International Conference on Cluster Research. Rethinking Clusters. September 23<sup>rd</sup>.
- Kim, K.**, Kogler, D., Maliphol, S. 2021. What are the key topics in the future interdisciplinary science?: Combination of network analysis and topic modelling method based on LDA mallet model. Research Policy 50<sup>th</sup> Anniversary Conference. Research Policy. September 10<sup>th</sup>.
- Kim, K.**, Shin, H., Koger, D. 2021. Relatedness and science change in region: The evolution of science space in EU regions. Research Policy 50<sup>th</sup> Anniversary Conference. Research Policy. September 10<sup>th</sup>.
- Kim, K.**, Shin, H., Koger, D. 2021. Relatedness and science change in region: The evolution of science space in EU regions. Regions in Recovery. Regional Studies Association.  
([https://www.youtube.com/watch?v=VLo698aT\\_Lg](https://www.youtube.com/watch?v=VLo698aT_Lg))
- Shin, H., **Kim, K.**, Koger, D. 2021. Moderating role of funding for science collaboration and novelty. Regions in Recovery. Regional Studies Association.  
([https://www.youtube.com/watch?v=VLo698aT\\_Lg](https://www.youtube.com/watch?v=VLo698aT_Lg))

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<sup>4</sup> [https://awekim.shinyapps.io/ss\\_bertopic/](https://awekim.shinyapps.io/ss_bertopic/)

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- Kim, K.**, Lee, C., Kogler, D. 2020. A new dimension of regional knowledge space: entry relatedness and entry potential. 5<sup>th</sup> edition of Summer School on Data & Algorithms for ST&I studies at Leuven, Belgium.
- Kim, K.**, Bounfour, A., Özeygen, A., Nonnis, A., Beliaeva, T. 2019. The contribution of ICT to productivity focusing on intangibles and interior/exterior ICT externalities. The World Conference on Intellectual Capital for Communities at Paris, France. European Chair on Intellectual Capital. July 11<sup>th</sup>.
- Nonnis, A., Özeygen, A., Bounfour, A., **Kim, K.**, Beliaeva, T. 2019. Analyzing the productivity contribution of intangible assets and participation in global value chains. The World Conference on Intellectual Capital for Communities at Paris, France. European Chair on Intellectual Capital. July 11<sup>th</sup>.
- Borja, S., **Kim, K.**, Yoon, H. Hwang, J. 2018. IT Governance Effectiveness and Its Influence on Innovation Product and Process. PICMET 2018 at Hawaii, USA.
- Hong, A., **Kim, K.**, Jung, S. & Kim, K. 2018. The effect of the patent convergence on global competitiveness index for cross country analysis. The Asia-Pacific Productivity Conference (APPC) 2018 “Productivity, Innovation, and Sustainable Economic Growth with Changing Technological Paradigm” at Seoul, South Korea.

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#### DOMESTIC CONFERENCE PARTICIPATION

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- Hur, J., Lee, S., Maliphol, S. **Kim, K.\*** 2025. The Impact of Entrepreneurial Learning of AI Capabilities on ESG Performance. 정보통신정책학회. 2025/11/21.
- Cho, Y., Hwang, E., Lee, Y., Yeon, J., **Kim, K.\*** 2025. 평가 지표 생성 및 계층적 머신러닝을 이용한 NBA 드래프트 루키 시즌 성공 예측 연구 A Study on Predicting Rookie Season Success in the NBA Draft Using Evaluation Metric Development and Hierarchical Machine Learning. 한국정보기술학회 하계 종합학술대회. 2025/6/13.
- Kim, K. 2024. TV 채널 시청 다양성과 클러스터링 기법을 활용한 미디어 시청 패턴 분석 Analysis of Media Viewing Patterns Using TV Channel Viewing Diversity and Clustering Analysis. 언론학회 코바코 특별세션. 2024/12/11.
- Ahn, S., Moon, B., Park, S., Kim, S., **Kim, K.\*** 2024. 자동차 법률 문서 해석에 특화된 데이터 전처리 및 프롬프트 엔지니어링 방법론 연구 Research on Data Preprocessing and Prompt Engineering Methodology Specialized for Interpreting Automobile Legal Documents. 한국정보기술학회 추계학술대회. 2024/11/21.
- Park, Y., Kim, D., Yoo, S., Bae, Y., **Kim, K.\*** 2024. Research on Prompt Engineering for Generating Business Data Analysis Reports Using Generative AI Models: Focusing on Performance Marketing Cases. 한국정보기술학회 하계학술대회. 2024/5/23.
- Choi, J., Oh, K., Jang, S., **Kim, K.\*** 2023. Predicting Bicycle Demand by Incorporating Station-Specific Spatial Features in a Graph Convolution Networks Model. 한국인공지능학회 추계학술대회. 2023/11/24.
- Ahn, D., Son, J., Kim, J. **Kim, K.\*** 2023. 머신러닝을 활용한 미국프로야구의 투수-타자 유형별 출루 및 아웃 예측 모델. 한국정보기술학회 추계종합학술대회. 2023/11/24.
- Lee, J., Lee, J., Kim, K., Park, K. 2022. What happens after niche failed becoming regime? An agent-based model of socio-technical transitions. 2022. 미디어경영학회 2022 년 정기학술대회. 2022/5/13.
- Lee, J., Park, K., **Kim, K.\*** 2021. Haunted by the ghost: Strengthen the regime stability by niche failure. 2021. 정보통신정책학회 2021 년 정기학술대회. 2021/11/19.



## RESEARCH GRANT PARTICIPATION

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- WeGO (World e-Governments Organization of Cities and Local Governments) Open Data Project. Open Data: An Introductory, Practical Guide for Solutions. Participation as a *Researcher*. 2014.07.01 ~ 2014.12.31.<sup>5</sup>
- Communications Policy Research Center (CPRC). Internet of Things Policy Project. Participation as a *Researcher*. 2016.04.01 ~ 2017.03.31.
- National Research Foundation of Korea (NRF). Common Research Project: “Theory Building of Appropriate Technology and Sharing Economy Application for Social Problem Resolution”. Participation as a *Researcher*. 2016.11.01 ~ 2018.12.31.
- Sun Dae In Economic Research Institute. “Real-estate price index development project” Participation as *Data Analyst*. 2016.09 ~ 2017.02.<sup>6</sup>
- Graduate School of Health Science Business Convergence, College of Medicine, Chungbuk National University. Pharmaceutical data preprocessing and integration project. Participation as *Data Analyst*. 2017.09 ~ 2018.02.
- GLOBALINTO (H2020 project). European Research Commission. Participation as Post-doc Researcher. 2019.02 ~ 2020.03.
- Northern Powerhouse Research and Innovation. Cambridge Econometrics. Participation as a Post-doctoral Researcher & Data Analyst. 2020.03 ~ 06.
- SciTech Space (SFI Science Policy Research Programme). Science Foundation Ireland. Participation as a Post-doctoral Researcher. 2020.03 ~ 2021.08.
- Culture & Art Education Project. Pohang City. 2023.07 ~ 12.
- Developing a Psychological Counseling Chatbot: Bridging Communication and Ergonomics for Promoting Self-disclosure and Efficient Counseling. National Research Foundation. 2023.04 ~ .
- Research on Quantum Science and Technology Korea-Europe International Cooperation R&D Network. Korea-Europe Quantum Science Technology Cooperation Center. 2024.01 ~ 2024.08.
- Exploring Methodologies for Enhancing International Cooperation Strategies. KISTEP. 2024.02 ~ 12.
- Analysis of Korean Securities Trading Data for Optimizing AI Interface Learning. Lean Commerce. 2024.05 ~ 2024.06.
- XaaS Pioneering Project. NIPA. 2024.05 ~ 2024.12.
- K-U City Culture Contents Activation Project. Gyeongsangbuk-do. 2024.06 ~ 12.
- Regional Innovation Project for Talent Development. Gyeongsangbuk-do. 2024.10 ~ 2025.01.
- Research on Quantum Science and Technology Korea-Europe International Cooperation R&D Network Advancement. Korea-Europe Quantum Science Technology Cooperation Center. 2025.06 ~ 2025.10.
- Research on the Functions of Science and Technology Innovation Policy in Response to Technological Hegemony Competition. KISTEP. 2025.05. ~ 2025.11.
- The New Leader of K-Content: Naver Webtoon’s Journey to Global Domination. Institute for Research in Korean Management. 2025.06 ~ 2026.05.
- A Study on Policy Responses to Changes in U.S. Energy and Climate Policy after Trump’s Re-election. Korea Energy Agency. 2025.08 ~ 2025.12.

## AWARDS & HONORS

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2025. KF Global Research Fellow.
2024. 부총리 겸 교육부장관 표창장 Certificate of Commendation from the Deputy Prime Minister and Minister of Education.

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<sup>5</sup> Research outcome, <http://we-gov.org/portfolio/open-data-an-introductory-practical-guide-for-solutions/>

<sup>6</sup> Research outcome, Kim, K. & Jung, S. 2017. A Study on Apartment Transaction Price Index Using Cluster Analysis: Focused on the case of Seoul. *Journal of Real Estate Analysis*, 3(1): 35-58. <https://doi.org/10.30902/jrea.2017.3.1.35>

- 
2015. Best Paper Award. Real Estate Policy and Market Analysis Papers Competition. Korea Appraisal Board.<sup>7</sup>
2015. Best Paper Award. The 5th International Symposia Green, Smart, Development and Vision 2015.
2013. Excellence Award. 2013 Idea Festival. Hyundai Motors R&D Center. “A vehicle for dwarfism, GLOVE”.

## TEACHING EXPERIENCE

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### **Yonsei University**, Seoul, South Korea

Introduction to Science, Technology and Policy; Computational Policy and Project Analysis  
Rise of Modern Science; Management Theories of Technological Innovation

### **Handong Global University**, Pohang, South Korea

Introduction to AI-DS; Introduction to Big Data; Text Mining; Data Science;  
Big Data Capstone Design; AI-DS Capstone  
Python Programming; App Programming; Introduction to Software

### **University College Dublin**, Dublin, Ireland

Regional Innovation. 2021-Spring

### **Institut Mines-Télécom Business School (IMT BS)**, Evry, France

Strategic Management of Intellectual Property Right. 2020-Spring

### **POSCO**, Pohang, Korea

Bahasa Indonesia lecture. 2012.03~06

## INVITED LECTURES / TALKS

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- “Applied Engineering Statistics” at Kyung Hee University. 2017-October.
- “NLP & Data Science” at Hyundai Motors Group. 2022-August.
- “Understanding and Application of Public Data” at Youngchun-si. 2023-March.
- “Smart AI Utilization” at Pohang City Hall. 2023-May.
- “Social Science in AI Era” at Uiduk University. 2023-May.
- “ChatGPT and Future Education” at Jakarta International University. 2023-June.
- “Invited Lecture on Vision” at Youngdong High School. 2023-June.
- “Big Data Analysis Introduction using Python<sup>8</sup>” at Co-Week Academy. 2023-July.
- “ChatGPT Competition” at Hyundai Motors Group. 2023-July.
- “Education Practices using ChatGPT” at Daegu University. 2023-October.
- “Managing My Own AI Personal Assistant: ChatGPT & Bard” at Hyundai Motors Company. 2023-October.
- “Using My Own Conversational Artificial Intelligence: LLaMA-2 WEB UI<sup>9</sup>” at Hyundai Motors Company. 2023-October.
- “Artificial Intelligence & Virtual Reality” at Culture Factory. 2023-October.
- “Artificial Intelligence & Virtual Reality Education” at AI-Metaverse Educator Training Course. 2023-November.
- “Smart Specialisation Strategies and Regional Knowledge Spaces: How to Bridge Vision and Reality” at ChungNam Institute. 2023-December.
- “Understanding and Application of Data Visualization” at Youngchun-si. 2024-March.
- “Service Planning and Strategy Using Generative AI” at Korea Hydro & Nuclear Power. 2024-April.

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<sup>7</sup> Kim, K., & Kim, Y. 2015. A Study on Forecasting Model for Apartment Housing Price Index Reflecting Model Uncertainty: Focused on BMS, BMA. *Journal of Real Estate Analysis*, 1(1), 27–52.

<sup>8</sup> [https://github.com/awekim/LEC\\_CoWeekBigData\\_2023](https://github.com/awekim/LEC_CoWeekBigData_2023)

<sup>9</sup> [https://github.com/awekim/LEC\\_MyAI\\_LLaMA](https://github.com/awekim/LEC_MyAI_LLaMA)

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“Technological Sovereignty and Strategic Dependence in the AI Era from a Fair-Trade Perspective” at Nepal Word Fair Trade Day. 2024-May.  
“Analysis of M&A Trends and Country-specific Patterns in the Entertainment Industry” at Korea Media Management Association. 2024-May.  
“Future Trend of Generative AI and Social Change” at Cyber Communication Academic Society. 2024-August.  
“AI Chef: Socioeconomic Class Competition” at Hyundai Motors Company. 2024-November.  
“Principles of Generative AI and Prompt Engineering” at Research Institute of Sustainable Technology & Innovation Consulting (RISTI). 2024-December.  
“Machine Learning Methods in Social Science” at Pusan National University. 2024-December.  
“AI Approaches in the Fields of Engineering” at Hyundai Motors Company. 2025-September.  
“The Key to Technological Sovereignty: Building Future Core Technology Cooperation Governance through Solidarity with Emerging Asian Countries” at 2025 Youth Public Diplomacy Day. 2025-September.  
“Empowering AI Capability for the Next Industrial Paradigm” at Hyundai Motors Company. 2025-September.  
“Machine Learning based Text Analytic Application in Policy Research” at Korea SMEs & Startups Institute. 2025-October.  
“The Future of Innovation through AI Agents” at Korea University. 2025-November.

## COMMITTEE

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한국언론학회 인공지능과 미디어위원회. Committee on Artificial Intelligence and Media. The Korean Society for Journalism & Communication Studies	2025
한국방송학회 AI 시대 영상산업정책 특별위원회. Special Committee on Video Industry Policy in the AI Era. The Korean Association for Broadcasting & Telecommunication Studies	2025
한국미디어경영학회 연구이사. Research Director. The Korea Media Management Association	2025
연세대학교 아프리카 연구원 연구위원. Research Committee. Institute of African Studies.	2025

## SOFTWARE / PROGRAMMING SKILLS

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*Fluent usage at big data handling, econometric analysis and data visualization using R & Python*  
Languages: R, Python, SQL  
Statistics & Econometric analysis: R, STATA, MATLAB, SPSS, AMOS, Eviews  
Network analysis: R, Gephi / Database: SAS, PostgreSQL, MySQL, Neo4j  
Web-crawling: R, Python / Text analysis (Natural Language Processing): R, Python  
Visualization: R, R Shiny<sup>10</sup>  
Intermediate level of engineering modelling and simulation using CATIA V5  
Additional software skills: MS-office literacy, Adobe Audition

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<sup>10</sup> R Shiny applications: [https://awekim.shinyapps.io/WoS\\_REG\\_shiny\\_R/](https://awekim.shinyapps.io/WoS_REG_shiny_R/), [https://awekim.shinyapps.io/WoS\\_shiny/](https://awekim.shinyapps.io/WoS_shiny/), [https://awekim.shinyapps.io/SS\\_shiny\\_R/](https://awekim.shinyapps.io/SS_shiny_R/), [https://awekim.shinyapps.io/Manuf\\_shiny\\_R/](https://awekim.shinyapps.io/Manuf_shiny_R/)

## ACADEMIC SERVICE

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Editorial Board in

*Humanities and Social Sciences Communications*

Ad-hoc Reviewer in

*Research Policy, Technovation, Journal of Business Research, Humanities and Social Sciences Communications, Economic Geography, Journal of Product Innovation Management, Entrepreneurship & Regional Development, Technological Forecasting and Social Change, Journal of Technology Transfer, Science and Public Policy, Regional Studies, Scientometrics, Technology Analysis and Strategic Management, Scientific Reports, International Regional Science Review, Policy Sciences, Industry: Organization & Management, Journal of Asian Economics, Journal of the Knowledge Economy, Journal of Construction Engineering and Management, R&D Management, Telematics and Informatics, Information Technology and Management, Plos One, Journal of Civil Engineering and Management, Entrepreneurship & Regional Development, Information Processing and Management, Journal of Intellectual Capital*