Hyunuk Kim

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http://hkim07.github.io

EDUCATION

Pohang University of Science and Technology (POSTECH), Pohang, Republic of Korea

- Ph.D. Candidate in Industrial and Management Engineering   Sep 2016 – Present
  - Adviser: Prof. Woo-Sung Jung
  - Research Interests: Computational Social Science, Network Science, Innovation, Technology Foresight
- M.S. in Industrial and Management Engineering   Sep 2014 – Aug 2016
- B.S. in Mathematics (Minor in Industrial and Management Engineering)   Mar 2007 – Feb 2013

EXPERIENCES

Kellogg School of Management, Northwestern University, Evanston, IL, USA

(affiliated with Northwestern Institute on Complex Systems)

- Visiting Pre-Doctoral Fellow   Jan 2018 – Jan 2019
  - Adviser: Prof. Hyejin Youn

Santa Fe Institute, Santa Fe, NM, USA

- Visiting Student Researcher   Feb 2016 – Mar 2016
  Finding patterns in a high-dimensional sparse data of world mythology and folklore

PUBLICATIONS

- Hyunuk Kim, Sang-Jin Ahn, and Woo-Sung Jung, "Horizon scanning in policy research database with a probabilistic topic model", *Technological Forecasting & Social Change*, in press.
- Hyunuk Kim and Woo-Sung Jung, "Does pitch type-zone uncertainty matter to pitcher's performance?", *New Physics: Sae Mulli*, vol. 68, no. 6, 2018.
- Hyunuk Kim, Taekho You, Sang-Jin Ahn, and Woo-Sung Jung, "Embracing networks of national policy research in future foresight" *International Journal of Knowledge-Based Development*, vol. 7, no. 2, pp. 107–124, 2016.
- Hyunuk Kim and Woo-Sung Jung, "Bibliometric analysis of collaboration network and the role of research station in Antarctic science" *Industrial Engineering & Management Systems*, vol. 15, no. 1, pp. 92–98, 2016.
- Hyunuk Kim and Sang-Jin Ahn, Woo-Sung Jung, "A Study on Technology Forecasting based on Co-occurrence Network of Keyword in Multidisciplinary Journals" *The Korean Operations Research and Management Science Society*, vol. 40, no. 4, pp. 49–63, 2015.

WORKING PAPERS

[1] Hyunuk Kim, Daniel Kim, Young-Ho Eom, Hawoong Jeong, Woo-Sung Jung, and Hyejin Youn, "Quantifying the history of technological innovation"

[2] Hyunuk Kim, Inho Hong, and Woo-Sung Jung, "Fusion of nations, fusion of disciplines: network evolution in nuclear fusion research"

[3] Hyunuk Kim, Marcus J. Hamilton, Woo-Sung Jung, and Hyejin Youn, "Diffusion of mythological information in biogeographic space"

HONORS & AWARDS

HONORS

- 2017 Global PhD Fellow, Ministry of Education, Republic of Korea   Mar 2017 – Feb 2019
  Fellowship program for accepted research proposals
  Project: "Evolutionary dynamics of technological innovation"
- Creative KISTEP Fellow, KISTEP, Republic of Korea   Apr 2017 – Aug 2017
  (KISTEP: Korea Institute of S&T Evaluation and Planning)
  Project: "Analyzing S&T knowledge structure by community detection in multislice network"
- Asan Young Fellow, Asan Institute for Policy Studies, Republic of Korea   Apr 2013 – Dec 2013
  Education program for Philosophy, Politics, and Economics;
  Internship at American Association for the Advancement of Science (AAAS), USA

AWARDS

- Nonprofit Startup Incubator Program, Seoul NPO Center   Jun 2018 – Sep 2018
  PRISMING: Blockchain for in-kind donation

- First Prize, Graduate Research Contest, Industrial and Management Engineering, POSTECH   2017

- Excellence Award, The 12th Master's Student Research Contest, KIIE Fall Conference 2016   2016
  (KIIE: Korean Institute of Industrial Engineers)

- Encouraging Paper Award, SOItmC & Knowledge Cities World Summit 2015   2015

SELECTED PRESENTATIONS

- Building technology space from microscopic dynamics to macro structure
  4th Annual International Conference on Computational Social Science, Evanston, USA   15 Jul 2018
  Conference on Complex Systems 2017, Cancun, Mexico   20 Sep 2017
  Growth Lab Seminar, Harvard Kennedy School, Harvard University, MA, USA   21 Jul 2017

- The structure of mythologies explains the human expansion out of Africa
  4th Annual International Conference on Computational Social Science, Evanston, USA   13 Jul 2018
  Conference on Complex Systems 2017, Cancun, Mexico   20 Sep 2017

- Measuring the impact of Tesla's open patents on electric vehicle market
  Korean Institute of Industrial Engineers Fall Conference 2016, Seoul, Republic of Korea   19 Nov 2016

- Fusion of nations, fusion of disciplines: network evolution in nuclear fusion research
  Conference on Complex Systems 2016, Amsterdam, Netherlands   20 Sep 2016

- Predicting future issues with keyword network of national policy research
  SOItmC & Knowledge Cities World Summit 2015, Daegu, Republic of Korea   16 Jun 2015

RESEARCH TOOLS

- Computing Languages: R, Python, C, JavaScript
- Network Visualization Software: Gephi, Pajek, Cytoscape

REFERENCES

- Dr. Woo-Sung Jung, *Associate Professor*
  Department of Industrial and Management Engineering / Physics
  Pohang University of Science and Technology, Pohang 37673, Republic of Korea
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- Dr. Hyejin Youn, *Assistant Professor*
  Management & Organizations Department at Kellogg School of Management
  Northwestern University, Evanston, IL 60208, USA
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