Dr. Yeong Jae Kim

CONTACT KDI School of Public Policy and Management

INFORMATION 263 Namsejong-Ro

Sejong-Si, 30149 Republic of Korea Office: 318

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Professional

EXPERIENCE Associate Professor 01/2023 - Present

KDI School of Public Policy and Management

Director 01/2023 - Present

Sustainable Development Lab @ KDI School

Affiliated Scientist 08/2022 - Present

RFF-CMCC European Institute on Economics and the Environment (EIEE)

Adjunct Professor 08/2023 - 08/2024

School of Management Engineering, KAIST

Assistant Professor 08/2022 - 12/2022

KDI School of Public Policy and Management

Junior Scientist 2019 - 2022

RFF-CMCC European Institute on Economics and the Environment (EIEE)

A research institute co-founded by **Resources for the Future (RFF)** and the **CMCC Foundation – Euro-Mediterranean Center on Climate Change (CMCC)**

Visiting Professor 2021

School of Management Engineering, KAIST

Senior Research Associate (Postdoc) 2017- 2019

Tyndall Centre for Climate Change Research (HQ)

Research Assistant 2009

Samsung Economic Research Institute, Seoul, South Korea

Analyst 2007- 2009

American International Group, Inc., Seoul, South Korea

Analyst 2007

Hyundai Motor Company, Headquarter, Seoul, South Korea

EDUCATION

Ph.D., Georgia Institute of Technology, Public Policy (Environmental Economics) 05/2017 (Dr. Marilyn Brown, Kaye Husbands Fealing, Erik Johnson, and Pat McCarthy)

M.S., Texas A&M University, Agricultural Economics 08/2011

B.S., Hanyang University, Seoul, South Korea, Mechanical Engineering 02/2007

Exchange Student, University of Texas at Austin, Mechanical Engineering 08/2005-08/2006

RESEARCH INTERESTS

Environmental and Energy Economics, Economics of Innovation, Applied Microeconometrics, and Program Evaluation

PEER REVIEWED ARTICLES

- [1] Sanni, M., & Kim, Y. J. (2024). How open are African inventors? Open green technologies and patenting activities in Africa. *African Journal of Science, Technology, Innovation and Development*. https://doi.org/10.1080/20421338.2023.2287001
- [2] Kim, Y. J., & Cho, S.-H. (2023). Is the discovery of oil a blessing or curse in the era of climate change? *Resources Policy* https://doi.org/10.1016/j.resourpol.2023.104264
- [3] Herman, K. S., Kim, Y. J., Shayegh, S., & Xiang, J. (2023). A Critical Review of Green Growth Indicators in G7 Economies from 1990 to 2019 Sustainability Science https://doi.org/10.1007/s11625-023-01397-y
- [4] Kim, Y. J., & Verdolini, E. (2023). International knowledge spillovers in energy technologies *Energy Strategy Reviews*, 49, 101151. https://doi.org/10.1016/j.esr.2023.101151
- [5] Hyun, M., Cherp, A., Jewell, J., Kim, Y. J., & Eom, J. (2023). Feasibility trade-offs in decarbonising the power sector with high coal dependence: The case of Korea. *Renewable and Sustainable Energy Transition*, 100050. https://doi.org/10.1016/j.rset.2023.100050
- [6] Choi, D., & Kim, Y. J. (2023). Local and global experience curves for lumpy and granular energy technologies. *Energy Policy*, 174, 113426. https://doi.org/10.1016/j.enpol.2023.113426
- [7] Kim, Y. J., Soh, M., & Cho, S.-H. (2022). Identifying optimal financial budget distributions for the low-carbon energy transition between emerging and developed countries. *Applied Energy*, 326, 119967. https://doi.org/10.1016/j.apenergy.2022.119967
- [8] Kim, Y. J. (2022). The countervailing effects of stocks of knowledge on low-carbon innovation through international collaboration. *Energy Policy*, 170, 113217. https://doi.org/10.1016/j.enpol.2022.113217
- [9] Kim, Y. J., Cho, S.-H., & Sharma, B. P. (2021). Constructing efficient portfolios of low-carbon technologies. *Renewable and Sustainable Energy Reviews*, 150, 111515. https://doi.org/10.1016/j.rser.2021.111515
- [10] Hyun, M., Kim, Y. J., & Eom, J. (2020). Assessing the impact of a demand-resource bidding market on an electricity generation portfolio and the environment. *Energy Policy*, 147, 111918. https://doi.org/https://doi.org/10.1016/j.enpol.2020.111918
- [11] Kim, Y. J., & Wilson, C. (2019). Analysing Energy Innovation Portfolios from a Systemic Perspective. *Energy Policy*, 134 (2019) 110942. https://doi.org/10.1016/J.ENPOL.2019.110942
- [12] Kim, Y. J., & Wilson, C. (2019). Analysing Future Change in the EU's Energy Innovation System. *Energy Strategy Reviews*, 24C (2019) pp. 279-299. https://doi.org/10.1016/j.esr.2019.04.012
- [13] Kim, Y. J., & Brown, M. A. (2019). The impact of domestic energy-efficiency policies on foreign innovation: the case of lighting technologies. *Energy Policy*, 128, 539-552. https://doi.org/10.1016/j.enpol.2019.01.032

- [14] Kim, Y. J., Husbands Fealing, K., & Klochikhin, E. (2018). Patenting activity in the food safety sector. *World Patent Information*, 55, 27-36. https://doi.org/10.1016/J.WPI.2018.08.005
- [15] Brown, M. A., Baer, P., Cox, M., & Kim, Y. J. (2014). Evaluating the risks of alternative energy policies: a case study of industrial energy efficiency. *Energy Efficiency*, 7(1), 1-22. https://doi.org/10.1007/s12053-013-9196-8

BOOK CHAPTERS AND REPORTS

- [1] Verdolini, E., Reis, L. A., Drouet, L., Tavoni, M., Kim, Y. J., Bonacorsi, L., ... Edenhofer, O. (2021). The international dimension of the EU low-carbon transition.
- [2] Karakosta, C., Papapostolou, K., Granado, P. C. del, Egging, R., Welisch, M., Hartner, M., ... Johansen, U. (2019). Navigating the roadmap for clean, secure and efficient energy innovation: Final report on SET-Nav policy briefs
- [3] Granado, P. C. del, Welisch, M., Hartner, M., Resch, G., Lumbreras, S., Olmos, L., ... Ansari, D. (2019). Summary Report "SET-Nav-Integrative policy recommendations" Decarbonization the EU's Energy System
- [4] Global Innovation Index 2018 Report published by Cornell University, INSEAD, and the World Intellectual Property Organization: Technology-Specific Analysis of Energy Innovation Systems (with Charlie Wilson)
- [5] Kaye Husbands Fealing, Stanley Johnson, John L. King, and Julia Lane, New Pathways to Research Impact: Case of Food Safety, Cambridge University Press. Chap 9: patenting across businesses(with Evgeny Klochikin and Kaye Husbands Fealing)

UNDER REVIEW

The air quality effects of Uber (with Luis Sarmiento) (R&R Journal of Urban Economics)

The Impact of Twin Transition on Firm's Business Performance: Empirical Evidence from Korean Manufacturing Firms (with Jihoon Choi) (R&R Energy Economics)

Woo, David and Kim, Yeong Jae, Data-driven Insights into South Korea's National Utilization of the EV Charging Infrastructure (R&R Environmental Research: Infrastructure and Sustainability)

Tradeoffs between the cost and speed of electric vehicle charging in Korea (with David Woo & Changkeun Lee)

Leaving Someone Behind: Coal Phase-Out in South Korea (with Jinseong Park, Changkeun Lee, Sehoon Kim & Sun Joo Park)

Energy Transitions Post–Russia–Ukraine War: Challenges and Policy Implications in Germany and Italy (with Seong-Hoon Cho and Kyeonggi Min)

WORK IN PROGRESS

The Staggering Adoption of Price Increases on Electric Vehicle Charging Infrastructure (with David Woo)

A field experiment on electric vehicle charge timing in South Korea (with David Woo and Seongho Park)

How does electric vehicle charging infrastructure accelerate the adoption of electric vehicles in South Korea? (with David Woo)

Endogenous R&D on clean energy technologies in WITCH model (with Elena Verdolini & Lara Aleluia Reis)

Carbon dioxide emissions embodied in international trade (with Elena Verdolini and Laura Bonacorsi)

The Effects of Water Pricing on Domestic Water Demand in Dhaka, Bangladesh (with Md Mujahidur Rahman)

TEACHING INTERESTS

Microeconomics, Energy Economics, Energy Policy, Environmental Economics, Environmental Policy, and Econometric Policy Evaluation

TEACHING
EXPERIENCE

KDI School of Public Policy and Management, Sejong, South Korea

K-Water capstone project	2024-2025
Seminar on Global Policies	2024-2025
Climate Change Economics and Policy	2024-2025
Environmental Economics and Policy	2024-2025
Global Energy Policy	2023-2025
Environmental and Climate Change Policy	06/2023
Technological Change and the Environment	2024-2025
Environmental and Climate Change Policy	09/2022

College of Business, KAIST, Seoul, South Korea

03/2024
09/2023
08/2022
08/2020

Georgia Institute of Technology, Atlanta, GA

Math and Stat Summer Prep

08/2016

Teaching Assistant

• PUBP8211: Microeconomics for Public Policy (Dr. Matej Drev)	01/2014-05/2014
• ECON8007: Microeconomics for Public Policy (Dr. Omer Baris)	01/2013-05/2013
• PUBP6116: Microeconomics Policy Analysis (Instructor: Jian Wang)	08/2012-12/2012
• PUBP8211: Microeconomics Theory (Dr. Doug Noonan)	01/2012-05/2012
• POL1101: Government of the U.S. (Dr. Julia Melkers)	08/2011-12/2011

Texas A&M University, College Station, TX

Teaching Assistant

• AGEC440: Agribusiness Strategic Analysis (Dr. Desmond Ng)	09/2010-12/2010
• AGEC314: Marketing Agricultural Products (Dr. S. Dharmasena)	06/2010-08/2010
AGEC603: Land Economics (Dr. David Newburn)	01/2010-05/2010

FELLOWSHIPS, SCHOLARSHIPS, AND AWARDS

Precourt Fellowship, Stanford Precourt Energy Efficiency Center	2016
Anne Robinson Clough International Student Fund	2016
Best Poster Award, Atlanta Conference on Science and Innovation Policy	2015
• National Science Foundation Travel Award (AWARD No. CBET-1539816)	2015
Sam Nunn Security Program Fellowship, MacArthur Foundation	2014-2015
Scholarship, Southeast Energy Efficiency Alliance Annual Conference	2014
• Scholarship, Southern Section of Air &Waste Management Association	2012
National Scholarship in Energy, Ministry of Knowledge and Economy	2009-2011
Departmental Scholarship, Texas A&M University	2009-2010
Hanyang University Study Abroad Scholarship	2009

ACADEMIC PRESENTATIONS

• 2025

EAERE 2025 Annual Conference, Bergen, Norway (Scheduled)

46th IAEE International Conference Paris 2025, France (Scheduled)

Seoul Workshop in Empirical Finance, Korea (Scheduled)

Electric Vehicle Conference 2025, Stuttgart, Germany (Scheduled)

Korea Environmental Policy and Administration Society, Korea

Korea Environment Institute, Korea

• 2024

Kyoto University, Kyoto, Japan

Eco-innovation Society - 2nd bi-annual Workshop, Paris, France

Yonsei University, Graduate School of International Studies, Seoul

The Max Planck Institute for Innovation and Competition, Munich, Germany (Accepted)

Integrated Assessment Modeling Consortium (IAMC) 2024, Seoul, Korea

European Association of Environmental and Resource Economists (EAERE) 2024, Leuven, Belgium

42th International Energy Workshop (IEW), Bonn, Germany

Korea Energy Modeling Forum (K-EMF), Korea

Korea Environmental Economics Conference, Korea

Korea Environment Institute, Korea

Sookmyung Women's University, Korea

• 2023

40th USAEE/IAEE North American Conference, Chicago, United States

2023 Korea-US Policy Dialogue: Towards Carbon Neutrality, Seoul, Korea (Chair)

17th International Conference on Energy Economics and Technology (ENERDAY), Dresden, Germany

Kiel Institute Workshop on the role of public research and innovation measures on mitigating climate change, Germany (Invited)

Korea Environmental Economics Conference, Korea

Graduate-Development Economics Seminar Series, National Graduate Institute for Policy Studies (GRIPS), Japan (Invited)

• 2022

IPCC 6th Assessment Report Workshop by Korea Environment Institute (Invited)

Energy Industrial R&D Policy by KAIST (Invited)

KDI School-World Bank DIME Conference on Impact Evaluation in Sustainable and Inclusive Development

European Climate and Energy Modelling Platform (ECEMP) 2022

Korea Environment Institute (Invited)

Empirical Methods in Environmental Economics Research by Sookmyung Women's University (invited)

GDLN Blended learning program: Climate Change Mitigation by KDIS and BLS (invited) European Association of Environmental and Resource Economists (EAERE) 2022 (by coauthor)

40th International Energy Workshop (IEW), Freiburg, Germany

Berlin School of Economics (BSE) workshop on the Effectiveness and Distributional Impacts of Environmental Policy (by co-author)

Sustainability and Development Conference 2022 (University of Michigan)

• 2021

2021 Annual SEEDS (Sustainability, Environmental Economics and Dynamics Studies) Workshop

13th Korea Energy Modelling Forum (K-EMF)

26th Annual Conference of the European Association of Environmental and Resource Economists Spatial Data Science Laboratory, University of Seoul (Invited)

IEA Workshop on R&D Data Collection and Mission Innovation Ministerial Side Event on Increasing the Efficiency of R&D Policies through Data and Analyses (Invited)

Mission Innovation Tracking Progress Workshop: Tracking Clean Energy Innovation Performance through Patent Indicators (Invited)

Laboratory for Sustainable Economy and Policy, Graduate School of Environmental Studies, Seoul National University (Invited)

9th Annual Conference of the Italian Association of Environmental and Resource Economists, Italy

IRENA Invitation to the closed-door expert workshop, Tracking Innovation Impacts (Exploring the impacts of innovation on offshore wind) (Invited)

Korea Energy Society, Seoul, South Korea (Invited)

Green Technology Center (GTC), Seoul, South Korea (Invited)

Graduate School of Science and Technology Policy, KAIST, Daejeon, South Korea (Invited) KAIST College of Business, KAIST, Seoul, South Korea (Invited)

• 2020

Thirteenth Integrated Assessment Modeling Consortium (IAMC) Annual Meeting 2020 CLOSED-DOOR EXPERT WORKSHOP Tracking Energy Innovation Impacts Framework (TEIIF), IRENA (Invited)

Korea Energy Economics Institute (KEEI), Ulsan, South Korea (Invited)

Yonsei University, Seoul, South Korea (Invited)

Korea Institute of Energy Technology Evaluation and Planning (KETEP), Seoul, South Korea (Invited)

4th Korea Energy Modelling Forum (K-EMF)

25th Annual Conference of the European Association of Environmental and Resource Economists Graduate School of Technology & Innovation Management, Hanyang University, Seoul, South Korea (Invited)

Exploring National and Global Actions to reduce Greenhouse gas Emissions (ENGAGE) project meeting

Eighth Annual Conference of the Italian Association of Environmental and Resource Economists, Brescia, Italy

• 2019

Climate and Energy Policy & Strategy Research Group, KAIST College of Business, Seoul, South Korea (Invited)

INNOPATHS project meeting, Potsdam Institute for Climate Impact Research (PIK), Potsdam, Germany

Exploring National and Global Actions to reduce Greenhouse gas Emissions (ENGAGE) kick-off meeting, IIASA, Vienna, Austria

1st Workshop on Climate Economics, Innovation, and Policy: The Economics of Environmental Policy and Innovation, Ottawa, ON Canada (Hosted by Dr. Carolyn Fischer: Canada 150 Chair — Climate Economics, Innovation, and Policy)

EAERE-FEEM European Summer School in Resource and Environmental Economics: Econometric Approaches for Environmental Policy Evaluation, Venice, Italy

24th Annual Conference of the European Association of Environmental and Resource Economists (EAERE), Manchester, U.K.

SET-NAV Final Conference, Brussels, Belgium

• 2018

IEA Innovation Team Meeting, International Energy Agency, Paris, France Energy Modelling Platform for Europe (EMP-E) 2018, Brussels, Belgium SET-Nav Internal Consortium Meeting, National Technical University of Athens, Athens, Greece

6th World Congress of Environmental and Resource Economists(WCERE 2018), Gothenburg, Sweden

41st International Association for Energy Economics(IAEE) Conference, Groningen, the Netherlands

Enhancing Data Collection on Government and Private Sector Spending for Clean Energy Research and Innovation(Workshop organised in the context of tracking progress in Mission Innovation), Malmo, Sweden

SET-Nav Internal Consortium Meeting, Comillas Pontifical University, Madrid, Spain Innovation Indicators to Track Progress of Mission Innovation Workshop, Brussels, Belgium

• 2017

SET-Nav Internal Consortium Meeting, DIW Berlin, Berlin

Tyndall Assembly Day, Newcastle University, UK

International Association for Energy Economics(IAEE) European Conference, Vienna, Austria

23rd Annual Conference of the European Association of Environmental and Resource Economists (EAERE), Athens, Greece

Doctoral seminar IAEE international conference (The Economics of Electricity Market), Groningen, the Netherlands

Colorado Technology Primer for Economists and Social Scientists(Summer School on the Electricity Grid), Golden, CO (Sloan Foundation)

The Centre on Innovation and Energy Demand (CIED) Summer School, University of Sussex, UK

9th Annual Alliance for Research on Corporate Sustainability (ARCS) Research Conference, Rotterdam School of Management (RSM), the Netherlands

SET-Nav Internal Consortium Meeting, ETH Zurich, Swiss

International Forum on Disruptive Low Carbon Innovations, London, UK

• 2016

Association for Public Policy Analysis & Management Research Conference, Washington, DC

Grantham Research Institute on Climate Change and the Environment, London, U.K.

ETH Academy on Sustainability and Technology 2016, ETH Zurich, Swiss

2016 Behavior, Energy and Climate Change (BECC) Conference, Baltimore, MD

Workshops on Original Policy Research (WOPR), Atlanta, GA

Energy Expo Georgia Tech, Atlanta, GA

Energy Chat: Georgia Tech Energy Club, Atlanta, GA

• 2015

Society for Risk Analysis 2015 Annual Meeting, Washington, DC Association for Public Policy Analysis & Management Research Conference, Miami, FL Atlanta Conference on Science, Technology and Innovation Policy, Atlanta, GA International Symposium on Sustainable Systems and Technologies, Dearborn, MI 56th Annual Transportation Research Forum, Atlanta, GA

• -2015

Guest Speaker of the PUBP 6201(Public Policy Analysis: Dr. Marilyn Brown) titled Treatment of Uncertainties with Monte, Atlanta, GA

Air &Waste Management Association (A&WMA) Annual Meeting and Technical Conference, Biloxi, MS

Trudie Dockerty, Thanh Doan, and Rhosanna Jenkins (University of East Anglia, Norwich, U.K.)

Minwoo Hyun (KAIST & University of California - Santa Barbara)

Donghyun Choi (KAIST & Georgia Institute of Technology)

Jintae Kim (KAIST & Seoul National University)

Moonwon Soh (University of Florida)

Daewu Ju (Assistant Professor, Hanyang University)

Kyonggi Min (Ph.D. Student, Georgia Institute of Technology)

Jihoon Choi (Ph.D. Student, George Mason University)

David Woo (KDI School, UC Davis)

Cheyeong Lee (KDI School)

Mujahid Rahman (KDI School)

Sangwoo Han (KDI School)

Muzammil Tariq (KDI School)

MILITARY SERVICE Military Service, Auxiliary Police Officer, South Korea

2002-2004

ACADEMIC SERVICES Guest Editor: PLOS ONE

Reviewer: Renewable & Sustainable Energy Transition; Climatic Change; Energy Economics; The Energy Journal; Environmental Research Letters; Energy Efficiency; Energy Policy; Economics of Innovation and New Technology; Environment, Development and Sustainability; Transportation Research Part D: Transport and Environment; Journal of Cleaner Production; International Journal of Environmental Research and Public Health; Renewable & Sustainable Energy Reviews; Journal of Energy Engineering, Energy Research & Social Science; Progress in Energy; Scientific Reports; Journal of Environmental Management; Environmental Research Communications

AERE Summer Conference Reviewers; AOM Annual Meeting ((ONE) Organizations and the Natural Environment); DRUID Conference; Expert Review of the First and Second Order Draft of the Working Group III (WG III) Contribution to the IPCC Sixth Assessment Report (AR6), ACEEE Summer Study on Energy Efficiency in Buildings; Annual Alliance for Research on Corporate Sustainability (ARCS) Research Conference; Proceedings of ISSST (International Symposium on Sustainable Systems and Technologies); Mandela Washington Fellowship

FUNDING AND GRANTS

KDI School of Public Policy and Management Research Funding (PI)

Brain Pool (Developing an Empirical Model for Electric Vehicle Charging Station Site Selection) by National Research Foundation of Korea (PI)

PROFESSIONAL MEMBERSHIPS

- American Economic Association (AEA)
- The European Association of Environmental and Resource Economists (EAERE)
- Association of Public Policy Analysis and Management (APPAM)
- The International Association for Energy Economics (IAEE)
- Italian Association of Environmental and Resource Economists (IAERE)

REFERENCES AVAILABLE TO CONTACT

Dr. Marilyn A. Brown, Ph.D. Advisor

(e-mail: Marilyn.Brown@pubpolicy.gatech.edu)

- Regents' and Brook Byers Professor, Climate and Energy Policy Laboratory, Georgia Institute of Technology
- D.M. Smith Building, 685 Cherry Street, Room 312, Atlanta, GA 30332

Dr. Elena Verdolini

(e-mail: elena.verdolin@eiee.org)

- Senior Scientist & Professor at the Universita degli Studi di Brescia, RFF-CMCC European Institute on Economics and the Environment (EIEE),
- Via Bergognone, 34, 20144 Milano (MI), Italy

Dr. Charlie Wilson

(e-mail: charlie.wilson@eci.ox.ac.uk)

- Professor, Professor of Energy and Climate Change at the Environmental Change Institute, School of Geography and the Environment, and Jackson Senior Research Fellow at Oriel College,
- Oxford University Centre for the Environment, University of Oxford, South Parks Road, Oxford, OX1 3QY, United Kingdom