

KYUNGMIN LEE

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EDUCATION

- | | | |
|------------|---|-----------------|
| PhD | Univesity of Delaware, Energy and Environmental Policy | (Expected) 2024 |
| | Dissertation: The Impact of Human Behaviors and the Built Environment on Energy Use and Heat in Cities. | |
| MCP | Seoul National University, Environmental Studies | 2018 |
| BA | Sungshin Women's University, Economics | 2014 |

RESEARCH FOCUS

Public Policy: Energy, Climate, & Environmental Policy, Infrastructure & Urban Planning, Economic & Community Development

Public Management: Technology & AI (Data Science, Machine Learning, Computer Vision, & Remote Sensing), Social Equity

PUBLICATIONS

* -Indicate lead author/mentor Publicatoin

Peer Reviewed Journals

2. Arjunan, P., Dobler, G., **Lee, K.**, Miller, C., Biljecki, F., & Poolla, K. (2021, November). Operational characteristics of residential air conditioners with temporally granular remote thermographic imaging. In *Proceedings of the 8th ACM international conference on systems for energy-efficient buildings, cities, and transportation* (pp. 184-187).
1. * **Lee, K.**, & Yun, S. (2018). Positive Effects and Problematic Conditions of Adopting the Benefit Sharing Mechanism in Renewable Energy Projects: Focusing on the Case of Onshore Wind Farms in Jeju Island. *Space & Environment*: Vol.65. (pp.227~270). doi: 10.19097/kaser.2018.28.3.227
 - Featured in the *Monthly Electrical Technology & Information* 2019 January

Under Review

1. * **Lee, K.**, & Yun, S. (2018). Drivers of CO2 Emissions Trends in Countries That Have Legislated Carbon Neutrality Targets. [Submitted]

Policy Reports

4. Cho, H., Lim, Y., Kim, S., Jeong, H., & **Lee, K.** (2019) Technical Assistance for the Development of an Urban Adaptation Plan for Kurunegala Project, D4.1 Report on the Results of Climate Change Risk and Vulnerability Assessment. CTCN Requests No. 2018000009 Vol 3. (UN Climate Technology Centre and Network, & Korea Environment Institute)
3. Cho, H., Rubio, C., Jeong, H., **Lee, K.**, & Odawa, S. (2019) Technical Assistance for the Development of an Urban Adaptation Plan for Kurunegala Project, D4.2 Climate Change Risk Assessment Guidelines. CTCN Requests No. 2018000009 Vol 4. (UN Climate Technology Centre and Network, & Korea Environment Institute)
2. Kim, G., & **Lee, K.** (2016). A Comparative Study of Humanitarian Programs for Climate Refugees. *Energine Focus*: Vol.69 (Energy Climate Policy Institute; Republic of Korea)
1. Kim, T., Maeng, J., Park, J., & **Lee, K.** (2014). A Study on Environmental Assessment Guideline for Site Selection of Offshore Wind Farm Project. (Korea Environment Institute)

WORKING PAPERS

4. * **Lee, K.**, & Dobler, G. Electricity peak and proximal infrared sensing
3. * **Lee, K.**, & Dobler, G. Data Aggregation and Privacy Policy
2. * **Lee, K.**, & Dobler, G. A Novel Approach to Assessing the Efficacy of Policy-driven Urban Energy Demand Reduction via Proximal Infrared Remote Sensing.
1. * **Lee, K.**, & Yun, S. Impact of Benefit Sharing Mechanism to Local Acceptance and Environmental Awareness

PRESENTATIONS AND INVITED LECTURES

Conference Paper/Panel Presentations

A Novel Approach to Assessing the Efficacy of Policy-driven Urban Energy Demand Reduction via Proximal Infrared Remote Sensing. *Association for Public Policy Analysis & Management (APPAM)*. November 2023. [Accepted]

A Comparative Analysis of Clustering-based CO2 Emission Decomposition and Scenario Assessment on South Korea and Countries Legalized Carbon Neutrality. *Northeast Conference on Public Administration (NECoPA)*. November 2023. [Accepted]

An Exploratory Study on Carbon Neutrality Monitoring Models and Scenarios for the Establishment of a Sustainability Assessment System: A Comparison of Korea and Countries Enacted Legally Binding Agreements. *Korea Safety, Health, and Environment Foundation*, Virtual Presentation. November 2022.

An Influence of the Benefit Sharing Mechanism to the Local Acceptance and Environmental Awareness: Focusing on the Case of Onshore Wind Farms in Jeju Island. *Bio-resources, Energy, Environment, and Materials Technology International Conference*. Hongcheon, South Korea. June 2018.

An Exploratory Study on Positive Effects of and Problematic Conditions of Adopting the Benefit Sharing Mechanism: Focusing on the Case of Onshore Wind Farms in Jeju Island. *Korea Environmental Policy and Administration Society*. Seoul, South Korea. February 2018.

A Study on Impacts from Price Subsidy and Tax Policy of EVs in South Korea. *Korea Environmental Economics Association International Conference*. Seoul, South Korea. June 2016.

Invited Lectures

Data-Driven Policy Making For Disaster Management. *Department of Public Administration, Chungnam National University*. April 2023.

Overview of Data Science and Machine Learning Tools in the Energy and Environmental Policy Field. *Department of Public Administration, Chungnam National University*. November 2021.

A Case Study of Machine Learning Applications in Energy and Environmental Policy. *Department of Public Administration, Chungnam National University*. October 2020.

Symposiums

Extraction of Air Conditioner Unit Indicators from Proximal Infrared Remote Sensing of Buildings. *UD Data Science Symposium*. November 2021.

Keynote Address

An Exploratory Study on Carbon Neutrality Monitoring and Scenario Evaluation: Comparative Analysis of Korea and Countries that Enacted Carbon Neutrality. *Naioth Debriefing Conference*. November 2022.

HONORS AND AWARDS

Research Fellowships

- 2023 Doctoral Fellowship for Excellence, University of Delaware 2023–2024 (\$2,444-2,528/month)
- 2022 Summer Doctoral Fellowship, University of Delaware (\$4,500)

Research Grants/Awards

- 2022 Environmental Research Forum Excellence Research Award, Korea Safety Health and Environment Foundation (\$250)
- 2015 Research Grant Program Competition Grant, Korea Energy Climate Policy Institute (\$1,550)

Honors

- 2022 Aspen Institute, Future Leaders Climate Summit Cohort, 2022 (Travel Award)
- 2016 International Meteorological Expert Program: UN Internship Fellowship, Korea Meteorological Administration (~\$3600)
- 2015 Global Environmental Leaders Program: UN Internship Fellowship, Ministry of Environment of Korea & Korea Environment Corporation (~\$6,000)
- 2014 Excellence Award, Korea National Assembly Climate Change Forum Climate Change Academy (Travel Award for the UNFCCC COP20 Observer)

Academic Distinctions / Scholarships

- 2019-23 Tuition & Assistantships, University of Delaware
- 2015-16 Merit-based & Work-Study Scholarships, Seoul National University
- 2011-13 Merit-based Scholarships, Sungshin Women's University

RESEARCH EXPERIENCE

University of Delaware, Research Assistant

Feb. 2023 – Present

Korea Environment Institute, Researcher
Seoul National University, Research Assistant
Korea Environment Institute, Research Intern

May 2019 – Jun. 2019
 Sep. 2015 – Aug. 2016
 Apr. 2014 – Dec. 2014

TEACHING EXPERIENCE

University of Delaware, Teaching Assistant
Undergraduate Level Courses (2019-2022)

Aug. 2019 – Dec. 2022

Crafting Public Policy (UAPP225)

Non-Governmental Actors: Interest Groups

Spring 2022

Environmental and Energy Policy

Spring 2021

Policy Implementation and Regulatory Rule-Making

Spring 2020

Introduction to Energy and Environmental Policy (ENEP250)

Global Environmental Law and Policy/Climate Policy/Seminar

Fall 2022

Study Team Workshop

Spring 2022

Environmental Law and Policy

Fall 2020

Political Economy of the Environment (ENEP410)

Global Capitalism and the Environment

Fall 2021

Environmental Sustainability: Political and Economic Analysis (ENEP410)

Global Financing: Climate Change and the Least Developed Countries

Fall 2019

WORK EXPERIENCE

Korea Marine Environment Management Corporation
International Affairs Specialist, *International Cooperation Team*

Jun. 2018 – Sep. 2018

United Nations Environment Program (UNEP)
Intern, *Green Growth Knowledge Platform*

Mar. 2017-Aug. 2017

**United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)-
 East and North-East Asia Office (ENEA)**
Intern, *Environmental Affairs*

Sep. 2016 – Feb. 2017

SERVICE ACTIVITIES

Department and University Service

UD Computational Social Science Association, Interim President, 2022-2023

UD Data Science Institute, Graduate Fellow, 2021-2023

UD Biden School Student Association, Secretary, 2021-2022
UD Korean Graduate Student Association, Officer, 2021-2022
UD Energy and Environmental Policy Student Association, Alumni Chair, 2020-2021

Community Service

NAITOH, Research & Thesis Writing Training Program Mentor, 2023-Present
Korean Youth Climate Change Network BIGWAVE, Steering Committee Member, 2016-2019

PROFESSIONAL & ACADEMIC AFFILIATIONS

Association for Public Policy Analysis and Management (APPAM), Member
Public Management Research Association (PMRA), Member
American Society for Public Administration (ASPA), Member
American Planning Association (APA), Member

LANGUAGES

English: Fluent; **Korean**: Native; **French, Chinese**: Beginner

COMPUTER SKILLS

Python (Main), R, STATA, SPSS, JMP, ArcGIS, Survey Design, LATEX

PROFESSIONAL REFERENCES

Prof. Gregory Dobler
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Biden School of Public Policy and
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