

Dasom Lee

Graduate School of Science and Technology Policy
Korea Advanced Institute of Science and Technology
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ACADEMIC POSITIONS

Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea

2022-Present. Assistant Professor, Graduate School of Science and Technology Policy
2024-Present. Head of Undergraduate Minor Program, Graduate School of Science and Technology Policy
2024-2027. EWon Assistant Professor

University of Twente, Netherlands

2021-2022. Assistant Professor (tenured), Department of Technology, Policy and Society
2021-2022. Founding Member, Strategic Intelligence for Digitalization of Societal Domains
2021-2022. Member, Robotics Working Group, Faculty of Engineering Technology

EDUCATION

2021. Ph.D. Sociology, Minor in Quantitative Methods, Vanderbilt University, United States
2014. M.A. Economics, Kyoto University, Japan
2009. B.Sc. Sociology, London School of Economics, United Kingdom

RESEARCH INTERESTS

Science and Technology Studies (Responsible Innovation); Energy Transitions; Transportation; Cyber-Physical Systems; Quantitative Methods.

EDITORIAL BOARD

2022-Present. Associate Editor, ACM Journal on Responsible Computing
2022-Present. Editorial Board Member. Humanities and Social Sciences Communications
2018-2021. Associate Editor, Work and Occupations

PEER-REVIEWED PUBLICATIONS

Asterisk indicates corresponding authorship.

Forthcoming. **Lee, Dasom*** and David Hess. Clean Energy Conservatism. Elgar Encyclopedia of Environmental Sociology.

2023. **Lee, Dasom***. Corporate Networks and Corporate Social Responsibility: Fortune 500 Companies' Performance on the Sustainable Development Goals. *International Journal of Organizational Analysis*. <https://doi.org/10.1108/IJOA-07-2022-3355>.

2023. Jansma, Sikke, Le Anh Nguyen Long, **Dasom Lee***. Understanding Energy Citizenship: How Cultural Capital Shapes the Energy Transition. *Energies*. <https://doi.org/10.3390/en16052106>.

2022. **Lee, Dasom**, David Hess, and Michiel Heldeweg. Safety and Privacy Regulations for Unmanned Aerial Vehicles: A Multiple Comparative Analysis. *Technology in Society*. <https://doi.org/10.1016/j.techsoc.2022.102079>.

2022. **Lee, Dasom*** and David Hess. Measuring Corporate Social Responsibility: An Evaluation of a New Sustainable Development Goals Index for Fortune 500 Companies. *International Journal of Organizational Analysis*. <https://doi.org/10.1108/IJOA-12-2021-3082>.

2022. **Lee, Dasom** and David Hess. Public Concerns and Connected and Automated Vehicles: Safety, Privacy, and Data Security. *Humanities and Social Sciences Communications*. <https://doi.org/10.1057/s41599-022-01110-x>.
2022. Sovacool, Benjamin, David Hess, Roberto Cantoni, **Dasom Lee**, Marie Clair Brisbois, Hans Jakob Walnum, Ragnhild Freng Dale, Bente Johnsen Rygg, Marius Korsnes, and Anandait Goswami. Conflicted Transitions: Actors, Tactics, and Outcomes of Energy Infrastructure Opposition and Community Mobilization in Carbon-Intensive Regions. *Global Environmental Change*. <https://doi.org/10.1016/j.gloenvcha.2022.102473>.
Media Coverage: Yale Environment Review <https://bit.ly/3Ea1F0A>
2021. Hess, David, **Dasom Lee**, Bianca Biebl, Martin Franzle, Sebastiaan Lehnhoff, Jurgen Niehaus, Alexander Pretschner, and Janos Szipanovits. A Sociotechnical Design Perspective on Responsible Research and Innovation: Perspectives for Problem Finding for Research on Digitized Energy and Automated Vehicles. *Journal of Responsible Innovation*. <https://doi.org/10.1080/23299460.2021.1975377>.
2021. Neema, Himanshu, Scott Phillips, **Dasom Lee**, David J. Hess, Zachariah Threet, Thomas Roth, and Cuong Nguyen. Transactive Energy and Solarization: Assessing the Potential for Demand Curve Management and Cost Savings. *ACM Proceedings of the Workshop on Design Automation for CPS and IoT*. <https://doi.org/10.1145/3445034.3460510>
2021. **Lee, Dasom** and David Hess. Data Privacy and Residential Smart Meters: Comparative Analysis and Harmonization Potential. *Utilities Policy* 70. <https://doi.org/10.1016/j.jup.2021.101188>.
2021. **Lee, Dasom***. Corporate Social Responsibility and Sustainable Development Goal 9. In: Leal Filho W., Azul A.M., Brandli L., Lange Salvia A., Wall T. (eds) *Industry, Innovation and Infrastructure. Encyclopedia of the UN Sustainable Development Goals*. Springer. https://doi.org/10.1007/978-3-319-71059-4_135-1
2020. **Lee, Dasom** and David Hess. Regulations for On-Road Testing of Connected and Automated Vehicles: Assessing the Potential for Global Safety Harmonization. *Transportation Research Part A: Policy and Practice* 136:85-98. <https://doi.org/10.1016/j.tra.2020.03.026>.
2020. Hess, David and **Dasom Lee**. Energy Decentralization in California and New York: Value Conflicts in the Politics of Shared Solar and Community Choice. *Renewable and Sustainable Energy Reviews* 121. <https://doi.org/10.1016/j.rser.2020.109716>.
2020. Neema, Himanshu, Janos Sztipanovits, David J. Hess, and **Dasom Lee**. TE-SAT: Transactive Energy Simulation and Analysis Toolsuite. *IEEE Workshop on Design Automation for CPS and IoT*. <https://ieeexplore.ieee.org/document/9140486>
2019. **Lee, Dasom** and David Hess. Incumbent Resistance and the Solar Transition: Changing Opportunity Structures and Framing Strategies. *Environmental Innovation and Societal Transitions* 33:183-195. <https://doi.org/10.1016/j.eist.2019.05.005>.

OTHER PUBLICATIONS

2024. *Policy Report*. Digitalizing Korea: The Role of the Private Sector in Technology Standards. *Carnegie Endowment for International Peace*.

2023. *Book Review*. Extracting Accountability: Engineers and Corporate Social Responsibility by Jessica M. Smith. *Contemporary Sociology*.
<https://doi.org/10.1177/00943061221142074gg>.
2022. *Policy Report*. Aukes, Ewert, Frans Coenen, Victoria Daskalova, Cihan Gercek, Florian Lukas Helfrich, **Dasom Lee**, Goos Lier, Lisa Sanderink, Juliane Marie Schilinger, Athanasios Votsis, Joey Willemse. Conditions for Socio-Economic Development and Citizen Engagement in Energy Islands. University of Aalborg. Commissioned by the European Commission. <https://research.utwente.nl/en/publications/conditions-for-socio-economic-development-and-citizen-engagement->
2022. *Policy Report*. Schillinger, Juliane, Frans H.J.M. Coenen, Ewert Aukes, Victoria Daskalova, Cihan Cercek, Florian Lukas Helfrich, **Dasom Lee**, Goos Lier, Lisa Sanderink, Athanasios Votsis, Joey Willemse. Obstacles that Currently Hinder the Development and Operation of Local Integrated Energy Systems. University of Aalborg. Commissioned by the European Commission.
<https://research.utwente.nl/en/publications/obstacles-that-currently-hinder-the-development-and-operation-of->
2020. *Non-Peer Reviewed Original Research Paper*. **Lee, Dasom**, David Hess, Himanshu Neema. The Challenges of Implementing Transactive Energy: A Comparative Analysis of Experimental Projects. *The Electricity Journal* 33(10).
<https://doi.org/10.1016/j.tej.2020.106865>.
2008. *Book*. Kim, Minjung, Susan Kim, Jaewon Kim, Hyeonsoon Kim, Haemin Kim, Eunhyun Mun, Yunho Bae, Misoon Baek, Byungon Shin, Hyewoo Yang, **Dasom Lee**, Byungryul Lee, Seokjoon Lee, Seoyeon Jang. 2008. 외국인 보호 및 교정 시설 방문조사 결과보고서 [A Survey on Undocumented Migrants in Detention Facilities in Korea], National Human Rights Commission of Korea. ISBN: 978-89-6114-043-0 93330. Authorship in alphabetical order.

WORK IN PROGRESS

Drafts available for all manuscripts

Substantive or Symbolic? ESG Leadership and Firm Performance. With Kendall Park and Allison Elias. *Under review*.

Changing the Game: Situating energy citizenship in the Dutch socio-technical landscape. With Le Anh Nguyen Long and Sikke Jansma. *Under review*.

Automated Vehicles' Safety: Technological, Environmental, and Human Aspects of Disengagement. With Le Anh Nguyen Long and Moon Choi. *Under review*.

Capital Endowments: How Renewable Energy Technologies Are Reshaping the Socio-Cultural Landscape in the Netherlands. With Le Anh Nguyen Long and Sikke Jansma. *Under review*.

Policy Harmonization for Data Centers: Environmental Challenges and Policy Pathways. With Neul Oh.

Data Donation for the Environment: Energy Data Collection and Gift Relationship. With Le Anh Nguyen Long and Sikke Jansma.

INVITED PRESENTATIONS

2023. Finding the Keyword for AI and Gender. Discussant. Korean Institute for Gender Equality Promotion and Education (한국양성평등교육진흥원), Republic of Korea.
2023. Energy Policy in the Digital Era. National information Society Agency (한국지능정보사회진흥원), Republic of Korea and United Nations Development Programme.
2023. Societal Aspects of Cyber-Physical Systems. Workshop on Science of Design for Societal-Scale Cyber-Physical Systems. National Science Foundation Partnerships for international Science and Engineering (PIRE) Program. Technical University of Munich.
2023. Embedding Artificial Intelligence and Sustainability in University Education. Korean Council on Social Welfare Education (한국사회복지교육협의회), Republic of Korea.
2023. New and Emerging Transportation Technologies and Gender. Korean Association of Women's Studies (한국여성학회), Republic of Korea.
2022. Safety and Privacy Regulations for Unmanned Aerial Vehicles. International Public Transportation Forum, Korean Society of Transportation (대한교통학회), Republic of Korea.
2022. *Keynote Speaker*. A Comparative, Sociotechnical Design Perspective on Responsible Innovation. Workshop on Bridging International Societal Differences in Autonomous and Digitalized Energy Systems at ACM e-Energy. University of Oldenburg, Germany.
2022. Sustainable Energy Transition Theories and International Practices. Graduate School of Economics, Kyoto University, Japan.
2021. Safety and Privacy of Unmanned Aerial Vehicles. Workshop on Assured CPS Autonomy for 3d Urban Transportation: Drones, Flying Cars and Beyond. NSF-PIRE Workshop: US-Germany CPS Collaboration. University of California, Berkeley, US.
2021. Can We Utilize Meter Data and Maintain Consumer Privacy? Institute of Public Utilities, Michigan State University, US.
2020. On-Road Testing of Connected and Automated Vehicles Regulations: Assessing the Potential for Global Safety Harmonization. Workshop: Social Dynamics beyond Vehicle Autonomy. Institute for Pure and Applied Mathematics, National Science Foundation, US.
2020. Safety and Equity Issues in Connected and Automated Vehicles. Driving Despite Impairments. Technical University Munich, Germany.

RESEARCH PROJECTS

1 USD = approx.1,200 KRW

As Principal Investigator

PI: 2023. AI Course Development Fund (AI 교과목 개발 지원). KAIST (KRW 10,000,000).

PI: 2023. Venture Research Program for Graduate and PhD student. Recipient student: Neul Oh. College of Liberal Arts and Convergence Science. KAIST (KRW 4,000,000).

PI: 2022-2023. Korea's Opportunities and Challenges in Private Sector Led Standard Setting, Carnegie Endowment for International Peace. (USD 5,000).

PI: 2022-2025. AI Regulations and Societal Challenges. KAIST New Faculty Research Grant (KRW 50,000,000).

Co-PI: 2022-2023. Energy Citizenship for Resilient Energy Systems. Funded by the Department of Technology, Human and Institutional Behavior, University of Twente (EUR 20,000).

PI: 2022-2023. Understanding the Importance of ELSA in New and Emerging Technologies: Developing Theoretical and Methodological Frameworks for Human Centered Connected and Automated Vehicles. Behavioral Data Science Incubator, University of Twente (collaboration grant).

Co-PI: 2022-2023. Towards a Common Research Agenda on the Socio-Technical Aspects of Net-Zero, Sustainable Data Centers. University of Twente and Vrije University Amsterdam (EUR 35,000).

As Non-Principal Investigator

Co-I: 2023-2024. Seed Funding. Pathways to Sustainability: Co-creating Pathways to Indigenous People's Energy Futures. Utrecht University, Netherlands (EUR 10,000).

Co-I: 2023. 단대혁신사업: EQUALS Research Coalition. Partners: ITU, UN Women, GSMA, Georgia Institute of Technology (KRW 20,000,000).

Co-I: 2023-2024. KAIST-NYU Digital Governance, KAIST (KRW 50,000,000).

Co-I: 2023-2025. Regulating Data Centers: The Impact of Data Centers on Climate Change and International Policy Harmonization, Center for Anthropocene Studies, National Research Foundation of Korea CRC Grant (KRW 9,750,000,000).

Co-I: 2020-2023. Policy Research on Safety and Quality of Life of Older Drivers Based on Big Data Analytics, National Research Foundation of Korea (한국연구재단) (KRW 400,000,000). *Joined in 2022.

Co-I: 2021-2025. Building a Low-Carbon, Climate Resilient Future: Secure, Clean and Efficient Energy. Horizon 2020, European Commission (EUR 5,000,000).

Co-I: 2021-2025. Sustainable Energy System for Achieving Novel Carbon Neutral Energy Communities. Horizon 2020, European Commission (EUR 5,000,000).

Graduate Research Assistant: 2018-2021. Science of Design for Societal-Scale Cyber-Physical Systems. Graduate Student, and later as a collaborator. Funded by the National Science Foundation.

Graduate Research Assistant: 2018. Exploration in Diversifying Engineering Faculty Initiative (EDEFI). Quantitative Methods Research Assistant. Funded by the National Science Foundation.

Graduate Research Assistant: 2016-2018. Partnership, Unity, and Inter-Corporate Networks: Political Donations of the Corporate Elite, 1980-2014. Funded by the Russell sage Foundation.

TEACHING EXPERIENCE

Certificate in College Teaching; Online Teaching Certificate, Vanderbilt University

2024. STP Seminar. Undergraduate Level. KAIST (1 credit).
2024. Science and Technology Policy. Undergraduate Level. KAIST (3 credits).
2023. AI, Big Data, and Society. Undergraduate Level. KAIST (3 credits).
2023. Digitalization and Sustainability. Undergraduate Level. KAIST (3 credits).
2023. Advanced Special Topics in Science and Technology Policy: AI and Cyber-Physical Systems Policy. Graduate Level. KAIST (3 credits).
2022. Advanced Special Topics in Science and Technology Policy: Digital Data for Policy Analysis. Graduate Level. KAIST (3 credits).
2022. Regulating Robotics, Department of Electrical Engineering Mathematics and Computer Science, Master's Level, University of Twente (2.5 credits).
2022. Smart Rules & Regimes, Department of Public Administration, Master's Level, University of Twente (5 credits).
2021. Digitalization and Sustainability, Department of Governance and Technology for Sustainability, Master's Level, University of Twente (2 credits).
2021. Energy Management, Department of Governance and Technology for Sustainability, Master's Level, University of Twente (4 credits).
- 2020, 2021, 2022. Spring: Training on Cyber-Physical Systems Virtual Organization, Institute for Software Integrated Systems, Vanderbilt University (2020, 2021: co-lectured as teaching assistant; 2022: guest lecturer).
2019. Human Behavior in Organizations, Vanderbilt University (3 credits).
2018. Professional Development Workshop: Introduction to Statistics, Exploring in Diversifying Engineering Faculty Initiative, Vanderbilt University.
2013. Guest lecturer, East Asian Economy, Graduate School of Economics, Kyoto University.

MENTORSHIP

2022. Ton Kempenaar. Community Compensation Fund and Social Acceptance of Onshore Wind Energy Projects. Master of Environmental and Energy Management. University of Twente.
2022. Hulst, Jurgen. Measuring and Improving the Impact of Sustainable Public Procurement of Immunization Cold Chain Equipment by UNICEF. Master of Environmental and Energy Management. University of Twente.
2022. Fuentes, Valeria. Incentive Mechanisms for Dutch Energy Transition: The Role of the SDE++ Subsidy Scheme for Introducing Solar PV Technologies in the Dutch Electricity Market Towards an Energy Transition. Master of Environmental and Energy Management. University of Twente.

2022. Giri, Bishwa. The Barriers to Implementing Green Hydrogen in the Decarbonization of the Dutch Container Glass Industry. Master of Environmental and Energy Management. University of Twente.
2022. Nouri, Behrouz. Energy Transition and the European Proposal for Artificial Intelligence Act. Case Study: The Netherlands. Master of Environmental and Energy Management. University of Twente.
2021. Urban, Emese. The Past, the Present and the Potential Future of Autonomous Vehicles in the European Union and in the United States. Master of Public Administration. University of Twente.

CONFERENCE PRESENTATIONS

2023. Capital Endowments: How Renewable Energy Technologies Are Reshaping the Socio-Cultural Capital Landscape in the Netherlands. Annual Meeting of Society for Social Studies of Science.
2023. Regulations on Data Centers for Climate Change and Privacy: A Comparative Review and Policy Harmonization. Annual Meeting of Society for Social Studies of Science.
2023. The Role of New and Emerging Technologies in the Energy Transition. Open Panel Organizer. Annual Meeting of Society for Social Studies of Science.
2023. Understanding Energy Citizenship: How Cultural Capital Shapes the Energy Transition. Association for East Asian Environmental History.
2022. How Energy Policy Triggers the Energy Transition in the EU: Reflections on a Dutch Energy Subsidy Scheme. 3rd International Conference on Energy Research & Social Science Conference.
2022. Energy Transitions and Political Conservatism: Geopolitical Context and Political Barriers. Annual Meeting of the European Urban Research Association.
2021. Public Concerns and Connected and Automated Vehicles: Safety, Privacy, and Security. 12th International Sustainability Transitions Conference.
2021. Corporate Social Responsibility and Transnational Capitalist Class; Comparing the Global Corporate Citizenship and Universal Owner. Annual Meeting of the American Sociological Association.
2021. Responsible and Profitable: The Co-existence of Institutional Logics in Corporations. Annual Meeting of Society for the Study of Social Problems.
2020. Privacy and Smart-Meters: A Comparative Analysis and Assessment of Harmonization Potential. Association for Public Policy Analysis & Management.
2020. Measuring Corporate Social and Environmental Responsibility: An Evaluation of a New Index Based on the Sustainable Development Goals. Annual Meeting of the American Sociological Association.
2020. Why do Corporations Change: Developing a New Understanding of the Industry Opportunities Structures Perspective. Accepted: Society for the Study of Social Problems 2020 Annual Meeting. Cancelled due to COVID 19.

2019. Incumbent Resistance and Solar Transition: Linkages between Framing Strategies and Opportunity Structures. Industry Studies Association Annual Conference.
2019. Race, Gender, and Mental Health Among Engineering Doctoral Students: Determinants of Stress and Seeking Help. American Educational Research Association.
2018. Intersectional Organization: 2006 Immigration Protests in MSAs and Changes in Identity Politics in Labor Movements, American Sociological Association.
2014. East Asia Power Hierarchy and Its Implications, Erasmus University, Netherlands.
2013. Capitalism and Racial Thinking: The relations between the rise of capitalism and the place of sub-continental Indians in the discourse of racism and cultural superiority in the 18th and 19th century, 61st Annual Conference of Japan Society of Political Economy: Cataclysm of Global Economy and Future of Capitalism, Japan.
2013. Transnational Families: Korean Students' Perception of the Changes of Their Family Relationship due to the Students' Migration, Yanbian University 3rd Korea, China, Japan Language and Cultural Comparative Studies International Symposium, China.
2013. A Qualitative Analysis on the Changes of Perspectives of a Japanese University Students towards Multiculturalism after Entering Higher Education, Annual Sociological Conference of Kansai University, Kansai University, Japan.

FELLOWSHIPS AND HONORS

- 2024-2026. EWon Assistant Professorship, KAIST
2023. Outstanding Research Award (우수연구상, 우수상), College of Liberal Arts and Convergence Science, KAIST
2023. Impact Research Award to Faculty Members who Contribute to Enhancing the International Status (국제적 위상 제고 기여 교원, A 급), College of Liberal Arts and Convergence Science, KAIST (Grade A, highest among all assistant professors in the college)
- 2020-2021. HASTAC Scholar, Computational Thinking and Learning Initiative, Vanderbilt University
2020. Russell Hamilton Graduate Leadership Grant, Vanderbilt University
- 2015-2020. Marion T. Loftin Scholarship, Vanderbilt University
- 2015-2020. Graduate Assistantship, Vanderbilt University
- 2012-2014. Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT) Scholar; Full tuition and stipend offered for 5 years
2009. Department of Sociology, London School of Economics, Graduation Honors

SERVICE

- 2024-Present. Head of Undergraduate Minor Program, Graduate School of Science and Technology Policy, KAIST.
- 2023-2024. Co-Chair. Faculty Search Committee, Graduate School of Science and Technology Policy, KAIST.
- 2023-2025. 인문사회융합과학대학 학사심의회, 위원
- 2023-2024. 인문사회과학연구소 운영위원회, 위원
- 2023-2024. 과학기술정책대학원 교과과정심의회, 위원
- 2021-Present. Member, Climate Social Science Network, Brown University
- 2020-2021. President, Department of Sociology, Vanderbilt University
- 2018-2019. Brownbag Series Coordinator, Vanderbilt University

Ad hoc reviewer for *Competition and Regulation in Network Industries*, *Contemporary Sociology*, *Energy Research and Social Science*, *Frontiers in Sustainable Cities*, *Humanities and Social Sciences Communications*, *International Journal of Information Security*, *Journal of Environmental Planning and Management*, *Open Research Europe (European Commission)*, *Transportation Research Part C: Emerging Technologies*, *Utilities Policy*, and *Work and Occupations*.

PROFESSIONAL AFFILIATIONS

Society for Social Studies of Science (SSSS)

Association for Public Policy Analysis & Management (APPAM)

European Association for the Study of Science and Technology (EASST)

American Sociological Association (ASA)

LANGUAGES

English (Fluent), Korean (Native)

R, MPlus, WinBUGS, UCINET, AMOS, LISREL, Python, GridLAB-D