

Gamze Ünlü

Energy, Climate, and Environment (ECE) Program <https://www.linkedin.com/in/gamze-unlu>
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EDUCATION

- 2022 – present PhD Social Ecology, BOKU University of Natural Resources and Life Sciences
“Exploring system-wide implications of transformation to a circular economy on climate change mitigation”
- 2017 - 2019 MSc Complex Systems Engineering and Management, Technical University of Delft
“Coupling Power and Heat Sectors as a Flexibility Option”
- 2013 - 2017 BSc Industrial Engineering, Bilkent University

PROFESSIONAL APPOINTMENTS

- 2019 – present Researcher, Energy, Climate, and Environment (ECE) Program, International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria
- 2018 – 2019 Graduate Assistant for Master’s Thesis Project, TNO The Netherlands Organization for Applied Scientific Research

AREAS OF INTEREST

Circular economy and material flows, climate mitigation scenarios and integrated assessment modeling

PUBLICATIONS

- Riahi, K., Bertram, C., Huppmann, D., Rogelj, J., Bosetti, V., Cabardos, A.-M., Deppermann, A., Drouet, L., Frank, S., Fricko, O., Fujimori, S., Harmsen, M., Hasegawa, T., Krey, V., Luderer, G., Paroussos, L., Schaeffer, R., Weitzel, M., Zwaan, B. van, ... Zakeri, B. (2021). Long-term economic benefits of stabilizing warming without overshoot – the Engage Model Intercomparison. <https://doi.org/10.21203/rs.3.rs-127847/v1>
- Soest, H. van, Reis, L. A., Baptista, L. B., Bertram, C., Després, J., Drouet, L., Elzen, M., Fragkos, P., Fricko, O., Fujimori, S., Grant, N., Harmsen, M., Iyer, G., Keramidas, K., Köberle, A., Kriegler, E., Malik, A., Mittal, S., Oshiro, K., ... Vuuren, D. van. (2021). A global roll-out of nationally relevant policies bridges the emissions gap. <https://doi.org/10.21203/rs.3.rs-126777/v1>

INVITED TALKS

- 2021 UNIDO, IIASA, Austrian Development Agency, Youth for VEF (Vienna Energy Forum) – Meet the Experts, Vienna, Austria, July 5.
- 2021 UNIDO, IIASA, Austrian Development Agency, Vienna Energy Forum Industry Hard to Abate Sectors, Vienna, Austria, February 10.

CONFERENCE ACTIVITY

- 2022 MESSAGEix-Materials: Representation of Material Flows in an Integrated Assessment Model. 14th ISIE SEM Conference. September 19-21. Vienna.
- 2022 MESSAGEix-Materials: Representation of Material Flows in an Integrated Assessment Model. 15th Integrated Assessment Consortium (IAMC) Annual Meeting. November 29-December 1. Online.
- 2020 Ünlü, G. Assessment of the Economic and Environmental Potential of Paris Agreement Article 6. 13th Integrated Assessment Consortium (IAMC) Annual Meeting. December 1-4. Online.

RESEARCH EXPERIENCE (PROJECTS)

2022 – present **CIRCEULAR**: Developing Circular Pathways for a EU Low-Carbon Transition (working on the development of MESSAGEix-Materials and including material flows and circular economy related measures into the model)

2019 – 2020 **COMMIT**: Climate Policy Assessment and Mitigation Modeling to Integrate National and Global Transition Pathways (contributed to modeling and scenario implementation of good practice policies in MESSAGE model)

2019- present **ENGAGE**: Exploring National and Global Actions to Reduce Greenhouse Gas Emissions (contributing to implementation of feasibility framework for climate mitigation scenarios in MESSAGE model)

2020 – present **NAVIGATE**: Next Generation of Advanced Integrated Assessment Modeling to Support Climate Policy Making (contributing to industry sector modeling and scenario implementation)

2020 **ALPS**: Alternative Pathways to Sustainable Development and Climate Stabilization (contributed to development of materials module for MESSAGE model)

REVIEW ACTIVITIES

Duan et al. Embodied carbon emissions of aluminum-containing commodities in international trade: China's perspective. March 2021. Climatic Change

RELATED PROFESSIONAL SKILLS

Integrated Assessment Modeling (MESSAGEix), Software Module Development on materials flow for MESSAGEix-Materials, Scenario Analysis, Programming Skills (Python, R)

March 2021, M&S Research Hub: Computable General Equilibrium Modelling Training (16 hours)

LANGUAGES

- Turkish (Native)
- English (Advanced)
- German (Intermediate)
- Spanish (Beginner)

NON-ACADEMIC WORK

2018 TU Delft Energy Club, Energy for Refugees Social Awareness Projects: Setting up a solar energy system in the island of Lesbos, Greece for the refugee camp KaraTepe.

2018 -2019 Board member Leiden-Delft-Erasmus Centre for Sustainability, a multidisciplinary research center in which three universities (Rotterdam Erasmus University, TU Delft, Leiden University) join forces.