DR. ELİF KÜÇÜK HORASAN

Environmental Engineer and Researcher
E-mail: elifkucukhorasan@gmail.com

ACADEMIC PROFILE

- Environmental engineer and researcher with expertise in climate change adaptation, water resource management, river basin governance, environmental systems analysis, pollution control strategies, cleaner production, waste management, life cycle assessment (LCA), life cycle costing (LCC), sustainability transitions. Experienced in interdisciplinary research integrating environmental engineering, governance analysis, environmental policy, and data-driven assessment methodologies. Research activities include climate change adaptation of local governments, river basin management under the EU Water Framework Directive, environmental risk assessment, pollution source identification, and sustainable resource management. Proven experience in international and national research projects funded by the European Union, Scientific and Technological Research Council of Turkey (TÜBİTAK), European Bank for Reconstruction and Development (EBRD), and public institutions. Author of peer-reviewed publications and experienced in translating scientific evidence into policy-relevant recommendations.

EDUCATION

2013-2018 PhD in Environmental Engineering
Thesis: “Development of a Methodology for Identification and Control of the Chemicals of the Greatest Concern: Yesilirmak River Basin Case Study”
Funded by the Scientific and Technological Research Council of Türkiye
Supervisor: Prof. Dr. Ulku Yetis
Middle East Technical University, Faculty of Engineering, Environmental Engineering Department, Ankara, Türkiye.

2010-2013 MSc in Environmental Engineering
Thesis: “Investigation of Non-Point Source Pollution Potential in the Watershed of Porsuk Dam Reservoir”
Supervisor: Prof. Dr. Aysegul Aksoy
Middle East Technical University, Faculty of Engineering, Environmental Engineering Department, Ankara, Türkiye.

2005-2010 BS in Environmental Engineering
Middle East Technical University, Faculty of Engineering, Environmental Engineering Department, Ankara, Türkiye.

POSTDOCTORAL RESEARCH EXPERIENCE

2020-2024 Postdoctoral Researcher
Section of Governance and Technology for Sustainability, University of Twente
Research Theme: Climate Change Adaptation and Urban Environmental Governance
Project Title: Application of a Comparative Survey to Determine the Climate Change Adaptation Status of Local Governments in Türkiye

2018-2019 Postdoctoral Researcher
Department of Environmental Engineering, Middle East
Technical University
Research Theme: Pollution Control Strategies and River Basin Governance
Project Title: Management of Point and Diffuse Pollutant Sources in Yesilirmak River Basin (Scientific and Technological Research Council of Türkiye (TÜBİTAK Project No. 115Y013)

TEACHING EXPERIENCE

2010-2018 Department of Environmental Engineering, Middle East Technical University
Position: Teaching Assistant

- Environmental Pollution and Ecology
- Unit Operations and Processes of Water Treatment
- Water Supply and Urban Drainage
- Wastewater Reuse
- Environmental Engineering Design I
- Environmental Engineering Design II
- Solid Waste Management
- Pollution Prevention

RESEARCH EXPERIENCE / PROFESSIONAL EXPERIENCE

2024-present DAI
Position: Senior Non-key Expert (External Expert)

2021-2024 Ekodenge
Position: Senior Expert and Environmental Group Coordinator

2015-2022 Department of Environmental Engineering, Middle East Technical University
Position: Researcher

PUBLICATIONS

- **Küçük Horasan, E.,** Özerol, G. (2026). Climate change adaptation status of Turkish local governments: A comparative analysis. Urban Climate. https://doi.org/10.1016/j.uclim.2026.102815
- **Kucuk, E.**, Pilevneli, T., Erguven, G.O., Aslan, S., Olgun, E.O., Canli, O., Unlu, K., Dilek, F.B., Ipek, U., Avaz, G.,Yetis, U. (2021). Occurrence of micropollutants in the Yesilirmak River Basin, Turkey. Environmental Science and Pollution Research. https://doi.org/10.1007/s11356-021-13013-6
- Gursoy-Haksevenler, B.H., Atasoy-Aytis, E., Dilaver, M., Yalcinkaya, S., Findik-Cinar, N., **Kucuk, E.**, Pilevneli, T., Koc-Orhon, A., Siltu, E., Gucver, S.M., Karaaslan, Y., Yetis, U. (2020). A strategy for the implementation of water quality-based discharge limits for the regulation of hazardous substances. Environmental Science and Pollution Research. https://doi.org/10.1007/s11356-020-10220-5.
- Gursoy-Haksevenler, B.H., Atasoy-Aytış, E., Dilaver, M., **Küçük, E.,** Pilevneli, T., Yetiş, Ü., Koç-Orhon, A., Şıltu, E. (2019). Natural background concentrations determination for metals in surface waters, Gediz River Basin. Turkish Journal of Water Science and Management, 3(1), 2-21.

CONFERENCES/PRESENTATIONS

International Conferences

Oral

- Randazzo, S., Vicari, F., López, J., Salem, M., Baaklini, D., Pawlowski, S., Karayilan, S., Cucchiara, R., Lo Brutto, R., Azzouz, S., Chamam, S., Cataldo, S., Fernández de Labastida, M., Vallès, V., Saif, H.M., Micale, G., Tamburini, A., **Kucuk, E.,** Pettignano,

A., D'Ali Staiti, G., Pastorelli, D., Crespo, J.G., Hannachi, A., Cortina, J.L., Cipollina, A. Potentials for critical raw materials recovery from Mediterranean saltworks bitterns. Desalination for the Environment: Clean Water and Energy, 20-23 June 2022, Las Palmas de Gran Canaria, Las Palmas, Spain (2022).

- Pilevneli, T., **Kucuk, E.,** Yetis, U. Improving waste management by providing audit capability to the waste declaration system. 9th International Conference on Sustainable Solid Waste Management (CORFU2022), 15-18 June 2022, Corfu, Greece (2022).
- Ince, I., **Kucuk, E.,** Yetis, U. Wastes from recycling of spent batteries. 8th International Conference on Sustainable Solid Waste Management (THESSALONIKI2021), 23-25 June 2021, Thessaloniki, Greece (2021).
- Baser, B., Yetis, U., Polat, C., **Kucuk, E.,** Pilevneli, T., Ata, M.M., Sesenoglu, I., Nuray, A., Durak,A., Kesimal, Y., Ecer, M., Birpinar, M.E. A study of waste management strategies and waste generation factors for vegetable oil refining sector. 8th International Conference on Sustainable Solid Waste Management (THESSALONIKI2021), 23-25 June 2021, Thessaloniki, Greece (2021).
- Polat, C., Yildirim, H., Yetis, U., Yilmazel, Y.D., Dilek, F.B., Baser, B., Ince, I., Yanar, S.B., Tanrikulu, M., Kucuk, E., Pilevneli, T., Ulgudur, N., Yurtseven, S.U., Yilmaz, O., Durak, A., Kesimal, Y., Ecer, M., Birpinar, M.E. Investigation of waste management practices in Turkey with a particular focus on interim waste storage facilities. 8th International Conference on Sustainable Solid Waste Management (THESSALONIKI2021), 23-25 June 2021, Thessaloniki, Greece (2021).
- **Kucuk, E.,** Erguven, G.O., Canli, O., Pilevneli, T., Aydin, E., Oktem-Olgun, E., Aslan, S., Kurt, Z., Unlu, K., Dilek, F.B., Ipek, U., Avaz, G., Yetis, U. Occurrence of micropollutants in the industrial wastewaters discharged to Yeşilırmak and Nilüfer Rivers in Turkey. 5th International Congress on Water, Waste and Energy Management (WWEM-19), 22-24 July 2019, Paris, France (2019).
- **Kucuk, E.,** Pilevneli, T., Aslan, S., Erguven, G.Ö., Canli, O., Oktem-Olgun, E., Kurt, Z., Madenli-Çelik, E., Unlu, K., Dilek, F.B., Avaz, G., Ipek, U., Yetis, U. Determination of the Impact of Point Sources on the Quality of the Receiving Environment of Yeşilırmak River Basin. 1st International Potable Water and Wastewater Symposium, 6-7 December 2018, Afyonkarahisar, Türkiye (2018).
- **Kucuk, E.**, Pilevneli, T., Yetis, U. Development of Discharge Limit Determination Methodology for Selected Priority Substances and Specific Pollutants in Turkey. International Environmental Engineering Conference & Annual Meeting of the Korean Society of Environmental Engineers (IEEC 2017), 15-17 November 2017, Jeju, South Korea (2017).
- Erciyes, E., **Kucuk, E.**, Pilevneli, T., Ipek, U., Balci, D.D., Unlu, K., Dilek, F.B., Celik, E., Yetis, U. Identification of River Basin Specific Pollutants Using Hazard-ranking and Risk-ranking of Chemicals. International Environmental Engineering Conference &

Annual Meeting of the Korean Society of Environmental Engineers (IEEC 2017), 15-17 November 2017, Jeju, South Korea (2017).

- Pilevneli T., **Kucuk, E.**, Yetis, U. Precautions to Control Priority and Specific Pollutants from Major Industrial Sources in a River Basin According to Water Framework Directive. International Environmental Engineering Conference & Annual Meeting of the Korean Society of Environmental Engineers (IEEC 2017), 15-17 November 2017, Jeju, South Korea (2017).
- **Kucuk, E.**, Danaci, D., Yetis, U. Waste Generation in Primary and Secondary Aluminum Sector in Turkey. 5th International Conference on Sustainable Solid Waste Management, 21-24 June 2017, Athens, Greece (2017).
- **Kucuk, E.**, Koc-Orhon, A., Siltu, E., Gucver, S.M., Karaaslan, Y., Kinaci, C., Yetis, U. Implementation of European Union Water Framework Directive in Turkey-Management of Dangerous Substances. 2nd IWA Regional Symposium on Water, Wastewater and Environment-The Past, Present and Future of the World's Water Resources, 22-24 March 2017, Izmir, Türkiye (2017).

Poster

- **Kucuk, E.**, Aksoy, A. Investigation of Non-Point Source Pollution Potential in the Watershed of Porsuk Dam Reservoir. International Water Association, World Water Congress & Exhibition, 21-26 September 2014, Lisbon, Portugal (2014).

National Conferences

Oral

- **Kucuk, E.**, Yetis, U. Yeşilırmak Havzası Özelinde Seçilen Öncelikli Maddeler için Madde Akış Analizi Yöntemi Uygulanarak Başlıca Baskıların Belirlenmesi. Çevre Mühendisleri Odası 12. Ulusal Çevre Mühendisliği Kongresi, 5-7 Ekim 2017, Ankara, Türkiye (2017).

Poster

- **Kucuk, E.**, Malkaz, Z., Ozkal, S., Aksoy, A. Eymir Gölü'ndeki Farklı Su Kalitesi Parametrelerinin İncelenmesi. Çevre Mühendisleri Odası 8. Ulusal Çevre Mühendisliği Kongresi, 12-14 Kasım 2009, Antalya, Türkiye (2009).

TRAINING AND CERTIFICATES

- TS EN ISO 14064-1:2019 Training on Greenhouse Gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals (TSE)
- Environmental and Social Framework – ESF Fundamentals (World Bank Group The Open Learning Campus)

GRANTS and AWARDS

- Middle East Technical University, Graduate School of Natural and Applied Sciences, Course Performance Award for performance during PhD study, 2015.
- National Scholarship Programme for PhD Students of the Scientific and Technological Research Council of Türkiye, Scholarship Award, 2013.
- Middle East Technical University, Graduate School of Natural and Applied Sciences, Course Performance Award for performance during MSc study, 2012.
- National Scholarship Programme for MSc Students of the Scientific and Technological Research Council of Türkiye, Scholarship Award, 2010.
- Ranked first among the 39 graduates of the Bachelor's degree program in the Department of Environmental Engineering, Middle East Technical University.

LANGUAGE

Turkish:	native
English:	fluent
German:	beginner
Dutch:	CEFR level A2/B1