

Madjid Delkash, Ph.D., P.E.

Environmental Engineer, (530) 601-0503, delkash@udel.edu

Professional Preparation

- University of Delaware, PhD, Environmental Engineering
- Sharif University of Technology, Tehran, Iran, M.Sc., Environmental Engineering
- Sharif University of Technology, Tehran, Iran, B.Sc., Civil Engineering

Appointments

2023 – Present: Engineer - US EPA, Office of Air and Radiation, Durham, NC

Responsibilities: Developing regulations (NSPS and EG) for greenhouse gas emissions from solid waste industries

2019 – 2023: Engineer - California EPA, Sacramento, CA

Responsibilities: Overseeing groundwater, soil vapor, and indoor air remediation projects

2017 – 2019: Landfill Gas Engineer - Golder Associates Inc, Sacramento, CA

Responsibilities: Designing gas and leachate collection systems for solid waste industries

2013 – 2017: Graduate Research Assistant- University of Delaware, Newark, DE.

Responsibilities: Modeling and analyzing greenhouse gas emissions from solid waste industries

Consulting Activities

Project title: Assessing Diurnal Variations in Methane Emissions from Landfills and Impact on Whole Landfill Emission Estimates - Funding Agency: Environmental Research and Education Foundation

Project title: Characterizing Emissions from California Biomethane Facilities - Funding Agency: Electric Power Research Institute, Inc & California Energy Commission

Project title: Coupled multi-process research for reducing landfill emissions – Funding Agency: NWO Open Competition Domain Science – GROOT

Academic Teaching Experience

Adjunct Professor

Fall 2022

Texas A & M University at San Antonio - Design of Wastewater Treatment Plants

Spring 2023

Texas A & M University at San Antonio - Food, Water, and Energy Nexus Sacramento State

California State University at Sacramento - Environmental Toxicology

Catholic University of America - Solid Waste Management

Fall 2023

Texas A & M University at San Antonio - Design of Wastewater Treatment Plants

Texas A & M University at San Antonio - Design of Water Treatment Plants

Spring 2024

Texas A & M University at San Antonio - Food, Water, and Energy Nexus

Texas A & M University at San Antonio - Design of Wastewater Treatment Plants

Fall 2024

University of North Carolina at Wilmington – Environmental Site Assessment

Texas A & M University at San Antonio - Design of Wastewater Treatment Plants

Peer-Reviewed Publications

1. Samani, S., Vadiati, M., Delkash, M., Bonakdari, H., 2023. A hybrid wavelet–machine learning model for qanat water flow prediction. *Acta Geophysica* 71, 1895-1913.
2. Delkash, M., Chow, F.K., Imhoff, P.T., 2022. Diurnal landfill methane flux patterns across different seasons at a landfill in Southeastern US. *Waste Manage.* 144, 76-86.
3. Taylor, D.M., Chow, F.K., Delkash, M., Imhoff, P.T., 2018. Atmospheric modeling to assess wind dependence in tracer dilution method measurements of landfill methane emissions. *Waste Manage.* 73, 197-209.
4. Delkash, M., Al-Faraj, F.A., Scholz, M., 2018. Impacts of anthropogenic land use changes on nutrient concentrations in surface waterbodies: a review. *CLEAN–Soil, Air, Water* 46, 1800051.
5. Kamali, M., Delkash, M., Tajrishy, M., 2017. Evaluation of permeable pavement responses to urban surface runoff. *J. Environ. Manage.* 187, 43-53.
6. Nakhli, S.A.A., Delkash, M., Bakhshayesh, B.E., Kazemian, H., 2017. Application of zeolites for sustainable agriculture: a review on water and nutrient retention. *Water, Air, & Soil Pollution* 228, 1-34.
7. Taylor, D.M., Chow, F.K., Delkash, M., Imhoff, P.T., 2016. Numerical simulations to assess the tracer dilution method for measurement of landfill methane emissions. *Waste Manage.* 56, 298-309.
8. Delkash, M., Zhou, B., Han, B., Chow, F.K., Rella, C.W., Imhoff, P.T., 2016. Short-term landfill methane emissions dependency on wind. *Waste Manage.* 55, 288-298.
9. Delkash, M., Bakhshayesh, B.E., Kazemian, H., 2015. Using zeolitic adsorbents to cleanup special wastewater streams: A review. *Microporous and Mesoporous Materials* 214, 224-241.
10. Bakhshayesh, B.E., Delkash, M., Scholz, M., 2014. Response of vegetables to cadmium-enriched soil. *Water* 6, 1246-1256.
11. Delkash, M., Al-Faraj, F.A., Scholz, M., 2014. Comparing the export coefficient approach with the soil and water assessment tool to predict phosphorous pollution: the Kan watershed case study. *Water, Air, & Soil Pollution* 225, 1-17.

In Preparation

1. **M. Delkash**, G. Aivazian, M. Thorpe, A. Kreitinger, M. Kunkel, M. Mohegh, R. Yazdani, P. Imhoff. Application of a Novel Airborne LiDAR Measurement in Quantifying landfill Methane Emissions.
2. M. Reynolds, **M. Delkash**, S. Karimi, G. Pandit, J. Winston, J. Lopez, R. Allen, R. Krajmalnik-Brown, H. Cadillo-Quiroz. Zero valent metals improve CH₄ production from solid waste.
3. J. Dai, P. Brewer, C. Feng, D. T. Roman, **M. Delkash**, K. Hondula, R. Allen, H. Cadillo-Quiroz. Environmental controls of fugitive methane emission of an arid municipal waste landfill in Arizona, U.S.
4. **M. Delkash**, ... , P. Imhoff. Assessing Four Years of Aeration at a Dutch Landfill.