

## NADER REZAEI

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### EDUCATION

<b>Ph.D.</b> 2019	<b>Environmental Engineering</b> Department of Civil & Environmental Engineering <i>University of South Florida</i>	Tampa, FL
<b>M.S.</b> 2011	<b>Chemical Engineering</b> Department of Chemical Engineering <i>Sharif University of Technology</i>	Tehran, Iran
<b>B.S.</b> 2009	<b>Chemical Engineering</b> Department of Chemical Engineering <i>Sharif University of Technology</i>	Tehran, Iran

### PROFESSIONAL APPOINTMENTS

Feb. 2023 - Present	<b>Postdoctoral Scholar</b> Department of Civil and Environmental Engineering <i>University of California, Irvine</i>	Irvine, CA
Jan. 2021 - Feb. 2023	<b>Postdoctoral Scholar</b> Department of Civil Engineering <i>University of Kentucky</i>	Lexington, KY
Mar. 2018 - Present	<b>Journal Publication Reviewer</b> <i>Journal of Environmental Management</i>	Elsevier
Jan. 2020 - Jan. 2021	<b>US-EPA's Pretreatment Program Coordinator</b> <i>Madison Metropolitan Sewerage District</i>	Madison, WI
Aug. 2019 - Dec. 2019	<b>Research Engineer</b> Department of Civil and Environmental Engineering <i>University of South Florida</i>	Tampa, FL
Jan. 2017 - Aug. 2019	<b>Graduate Research Assistant</b> Department of Civil and Environmental Engineering <i>University of South Florida</i>	Tampa, FL
Aug. 2014 - Dec. 2016	<b>Graduate Research Assistant</b> Department of Environmental Engineering <i>Texas A&amp;M University</i>	Kingsville, TX
Apr. 2012 - Sep. 2013	<b>Supervisor Engineer</b> <i>Department of Environment</i>	Tehran, Iran
Sep. 2009 - Mar. 2012	<b>Graduate Research Assistant</b> Department of Chemical and Petroleum Engineering <i>Sharif University of Technology</i>	Tehran, Iran

**PUBLICATIONS*****Peer-Reviewed Journal Articles***

- Wakhungu, M. J., **Rezaei, N.**, Diaz-Elsayed, N., Hua, J., Pham, M., & Zhang, Q. (2023). Designing for Sustainability: A Web-Based Tool for Water Reclamation. *Human Organization*, 82(1), 48-60.
- Diaz-Elsayed, N., Hua, J., **Rezaei, N.**, & Zhang, Q. (2023). A Decision Framework for Designing Sustainable Wastewater-Based Resource Recovery Schemes. *Sustainability*, 15(4), 3839.
- Ojha, S., Li, Y., **Rezaei, N.**, Robinson, A., Hoover, A., & Pennell, K. G. (2022). A geospatial and binomial logistic regression model to prioritize sampling for per-and polyfluorinated alkyl substances in public water systems. *Integrated Environmental Assessment and Management*, 19(1), 163-174.
- Roghani, M., Li, Y., **Rezaei, N.**, Robinson, A., Shirazi, E., & Pennell, K. G. (2021). Modeling Fate and Transport of Volatile Organic Compounds (VOCs) Inside Sewer Systems. *Groundwater Monitoring & Remediation*, 41(2), 112-121.
- Diaz-Elsayed, N., **Rezaei, N.**, Ndiaye, A., & Zhang, Q. (2020). Trends in the environmental and economic sustainability of wastewater-based resource recovery: A review. *Journal of Cleaner Production*, 265, 121598.
- **Rezaei, N.**, Sierra-Altamiranda, A., Diaz-Elsayed, N., Charkhgard, H., & Zhang, Q. (2019). A multi-objective optimization model for decision support in water reclamation system planning. *Journal of Cleaner Production*, 240, 118227.
- **Rezaei, N.**, Diaz-Elsayed, N., Mohebbi, S., Xie, X., & Zhang, Q. (2019). A multi-criteria sustainability assessment of water reuse applications: a case study in Lakeland, Florida. *Environmental Science: Water Research & Technology*, 5(1), 102-118.
- Diaz-Elsayed, N., **Rezaei, N.**, Guo, T., Mohebbi, S., & Zhang, Q. (2019). Wastewater-based resource recovery technologies across scale: a review. *Resources, Conservation and Recycling*, 145, 94-112.

***Conference Proceeding***

- **Rezaei, N.**, Kariminia H.R., & Yaghmaei S. (2012). Bioremediation of diesel-contaminated soil using isolated indigenous microorganisms in Iran. *4th Safety Engineering and HSE Management Conference*, the Center for Process Design, Safety and Loss Prevention (CPSL), Sharif University of Technology, Tehran, Iran.

***Dissertation and Thesis***

- **Rezaei, N.** (2019). A Decision-making Framework for Hybrid Resource Recovery Oriented Wastewater Systems. *Ph.D. dissertation, University of South Florida, ProQuest* (13903833).
- **Rezaei, N.** (2011). Experimental removal of diesel in soil using indigenous microorganisms isolated in Iran. *M.S. thesis, Sharif University of Technology, 42401* (06).

**Website**

- **WasteWATER:** A web-based online tool for design and management of sustainable wastewater treatment and water reclamation systems, based at the University of South Florida. <https://wastewater.csee.usf.edu/tos>

**TEACHING EXPERIENCES**

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|--|--------------------|-----------------------------|-------------|
| • Introduction to Environmental Engineering (97 Registered Students) | Co-Instructor      | University of Kentucky      | Spring 2022 |
| • Physical Chemical Principles in Environmental Engineering          | Teaching Assistant | University of South Florida | Fall 2018   |
| • Surface water quality modeling (Graduate Course)                   | Teaching Assistant | Texas A&M University        | Spring 2016 |
| • Chemical Principles of Environmental Engineering Design            | Teaching Assistant | Texas A&M University        | Fall 2014   |

**PRESENTATIONS**

- **Nader Rezaei** & Kelly G. Pennell. A Systematic Approach Model to Address Indoor Air Contamination from Sewer Networks Near Superfund Sites (Poster Presentation). **35<sup>th</sup> Anniversary Superfund Research Program (SRP) Annual Meeting**, Raleigh, NC. December 14-16, 2022.
- Hong Cheng (Herman) Tay, **Nader Rezaei**, & Kelly G. Pennell. High Performance Analyzer in Vapor-phase for Detection of Volatile Organic Compounds (VOCs) in Plumbing Systems (Poster Presentation). **35<sup>th</sup> Anniversary Superfund Research Program (SRP) Annual Meeting**, Raleigh, NC. December 14-16, 2022.
- **Nader Rezaei** & Kelly G. Pennell. Investigation and mitigation of Indoor Air Contamination from VOCs Vapor Intrusion (VI) at a Superfund Site (Oral Presentation). **42<sup>nd</sup> International Symposium on Halogenated Persistent Organic Pollutants, Dioxin 2022 Conference**, New Orleans, LA, October 9-14, 2022.
- Hong Cheng (Herman) Tay, **Nader Rezaei**, & Kelly G. Pennell. Indoor Air Pollution: Plumbing System Prototype Testing (Poster Presentation). **42<sup>nd</sup> International Symposium on Halogenated Persistent Organic Pollutants, Dioxin 2022 Conference**, New Orleans, LA, October 9-14, 2022.
- **Nader Rezaei** & Kelly G. Pennell. Development of an Approach Model to Investigate and Mitigate Indoor Air Contamination from Sewer Networks (Oral Presentation). **AEESP 2022 Conference**, Washington University in St. Louis, St. Louis, MO, June 28-30, 2022.
- Hong Cheng (Herman) Tay, **Nader Rezaei**, Benjamin Bratten, & Kelly G. Pennell. Detection of Volatile Organic Compounds (VOCs) in Plumbing Systems Using High-Performance Vapor Analyzer (Poster Presentation). **AEESP 2022 Conference**, Washington University in St. Louis, St. Louis, MO, June 28-30, 2022.
- **Nader Rezaei**, Alvaro Sierra-Altamiranda, Nancy Diaz-Elsayed, Hadi Charkhgard, & Qiong Zhang. A multi-objective optimization model for wastewater system management (Poster Presentation). **AEESP 2019 Conference**, Arizona State University, Tempe, AZ, May 12-16, 2019.

- **Nader Rezaei**, Alvaro Sierra-Altamiranda, Nancy Diaz-Elsayed, Hadi Charkhgard, & Qiong Zhang. A multi-objective optimization model for water system management: site and technology selection, capacity allocation, and degree of decentralization; Case Study: Hillsborough County, FL (Poster Presentation). **2018 WateReuse California Conference**, Monterey, CA, March 25-27, 2018.
- **Nader Rezaei**, Alvaro Sierra-Altamiranda, Nancy Diaz-Elsayed, Hadi Charkhgard, & Qiong Zhang. A multi-objective optimization model for water system management: site and technology selection, capacity allocation, and degree of decentralization; Case Study: Hillsborough County, FL (Poster Presentation). **2018-2019 AEESP Distinguished Lecturer Series**, University of South Florida, Tampa, FL, November 2, 2018.
- **Nader Rezaei**, Shima Mohebbi, & Qiong Zhang. Integrated Water/Wastewater Systems from the Perspective of Reverse Logistics Network; Case Study: City of Lakeland, FL (Oral Presentation). **AEESP 2017 Conference**, University of Michigan, Ann Arbor, MI, June 20-22, 2017.
- **Nader Rezaei**, Shima Mohebbi, & Qiong Zhang. Integrated Water/Wastewater Systems from the Perspective of Reverse Logistics Network; Case Study: City of Lakeland, FL (Poster Presentation). **AEESP 2017 Conference**, University of Michigan, Ann Arbor, MI, June 20-22, 2017.

#### HONORS AND AWARDS

- 2018 Student travel scholarship and complimentary registration, awarded by the **International Water Conference**, Scottsdale, AZ, November 4-8, 2018.
- 2016 Member of the **Honor Society of Phi Kappa Phi**, the nation's oldest and most selective honor society for all academic disciplines (Texas A&M University chapter).
- 2015 Research proposal grant (\$50,000), awarded by the **Interdisciplinary Seed Grants for Energy Research**, Texas A&M University.