



Graduate Seminar

Yang Deng, Ph.D., P.E., BCEE

**Professor and University Distinguished Scholar at
Montclair State University**

October 13, 2025 (4:00 pm - 5:20 pm), CKB G-08

[Zoom Link: Click Here](#) Meeting ID: 936 2541 0342 Passcode: 206829

From Contaminant Treatment to Infrastructure Adaptation: Engineering for Resilience and Sustainability

Abstract

My research group develops innovative engineering solutions to pressing water and environmental challenges. This presentation highlights two intertwined themes. The first centers on technological innovations - such as advanced reduction processes and ferrate(VI) technologies - to address emerging and persistent contaminants, including per- and polyfluoroalkyl substances (PFAS). These efforts advance solutions from drinking water treatment, wastewater treatment and reuse, site remediation, to stormwater management and harvesting. The second theme focuses on inventive strategies for adapting water systems to natural disasters and climate change, such as the resilience of water supply infrastructure in Puerto Rico and Florida in response to recent hurricanes. Join me in exploring engineering innovations for a sustainable and resilient future.

About the Speaker

Yang Deng, Ph.D., P.E., BCEE, is a Professor and University Distinguished Scholar at Montclair State University, New Jersey, and Associate Director of the Clean Energy and Sustainability Analytics Center. His research focuses on advanced water treatment technologies and innovative engineering strategies for adaptation of water infrastructure. Dr. Deng has authored more than 170 peer-reviewed publications, with nearly 18,000 citations and an h-index of 62. He recently served as Editor-in-Chief of a new book PFAS Treatment Technologies, published by the Royal Society of Chemistry. His research program has secured multi-million-dollar funding from federal agencies (e.g., NSF, EPA, NOAA, USDA, USAID, DOI, USGS, and DOT), the industrial sector (e.g., DuPont), and non-profit organizations (e.g., Environmental Research and Education Foundation). Dr. Deng is an Editor for three leading journals—Journal of Hazardous Materials, Water Environment Research, and ASCE-Journal of Environmental Engineering. His contributions have been recognized with numerous prestigious honors, including 2024 Educator of the Year (ASCE–New Jersey Section), 2023 Camp Applied Research Award (Water Environment Federation), 2022 Project Innovation Award, Gold Winner (International Water Association), 2019 Superior Achievement Award (American Academy of Environmental Engineers and Scientists (AAEES)), and 2018 Nanova Frontier Research Award (Chinese-American Professors in Environmental Engineering and Science). In 2024, he was inducted into AAEES as a Board-Certified Environmental Engineer (BCEE) through “Certification Through Eminence”. Dr. Deng received his BS and MS degrees in Civil and Environmental Engineering from Tongji University (China), and his PhD from the University of Miami. Before joining Montclair, he served as a faculty member in Civil and Environmental Engineering at the University of Puerto Rico.



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