



Qiong 'Jane' Zhang

Professor Qiong Zhang Receives CAREER Award

Qiong Zhang, assistant professor in the Civil and Environmental Engineering Dept, has received a \$501,886 CAREER award from the National Science Foundation's Environmental Sustainability Program for her project "Envisioning Integrated Wastewater Management through the Lens of Reverse Logistics." CAREER awards are NSF's most prestigious awards in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education, and the integration of education and research within the context of the mission of their organizations.

Increasing water demand, accompanied by water scarcity and the likely impact of climate change on water supplies, has created complex challenges for sustainable water management, demonstrating the need for integrated wastewater management that promotes and facilitates resource recovery. Zhang's project will address these issues; thus providing support to improve the economic and social well-being of Florida, the nation, and world. Her research will determine the optimal sustainable configurations for integrated wastewater management through an innovative decision framework that integrates multi-discipline methods and tools and context-based learning. The research and education activities of her CAREER project will provide a context-based learning environment to train postdoctoral research scientists, graduate students, and undergraduate students in solving complex water problems. Stakeholder participation and wide dissemination of findings and products will be achieved through microblogging, a web tool, and utility partnerships. The project will also leverage support from the Alfred P. Sloan Minority Ph.D. program to recruit and support underrepresented minority graduate students.

Zhang has sponsored research projects in the areas of green engineering, sustainability, life cycle assessment, water supply and treatment, water reuse, energy modeling of water and bioenergy systems, and estimation of carbon footprint and greenhouse gas emissions of various water and wastewater technologies and strategies. Her research has been supported by the Water Reuse Foundation, Florida Energy Systems Consortium, National Science Foundation's MUSES, CCLI, S_STEM, and PIRE programs, and the Environmental Protection Agency Science to Achieve Results (STAR) program.

She has contributed to development of two widely adopted engineering textbooks, *Water Treatment: Principles and Design* (John Wiley, 2005) and *Environmental Engineering: Fundamentals, Sustainability, and Design* (John Wiley, 2014). She is also the recipient of a Best Paper Award from the Environmental Engineering Division of the American Society for Engineering Education (ASEE) and a New Faculty Research Award from the Southeast Division of the American Society for Engineering Education.