

Staff Spotlight: Dr. Xuede (Dan) Qian - Environmental Engineering Excellence

With over 50 published works under his belt, including a technical book entitled "Geotechnical Aspects of Landfill Design and Construction" that is used worldwide, Dr. Xuede (Dan) Qian is an invaluable resource for the Michigan Department of Environmental Quality's Waste and Hazardous Materials Division.

What Dan does may not be glamorous, but where it lacks in glamour, it makes up for with the reward that he knows he's making a difference to help the Earth in his own way.

Dan is a statewide Geotechnical Engineering Specialist for the DEQ. In his unique role at the DEQ, Dan reviews design plans developed by consulting firms for the design and construction of projects like landfills, hazardous waste facilities, brownfield redevelopment projects, as well as other projects around the state.

Dan's work is critically important to Michigan to avoid situations where, for example, a landfill is developed incorrectly and could have extremely adverse impacts on the environment around it. Problems at landfills can range from faulty foundations, improperly designed liners, and other infrastructure faults that could result in a leaking landfill or side slope collapse.

Since the current tendency of landfill development is to expand existing facilities, the DEQ's role is to ensure that the stability of the landfills is maintained, and the surrounding environment is protected. Dan's work ensures that Michigan's landfills are safe and serve as a model for the rest of the country.

"That's why I work for the state, because the problem becomes serious for our Earth," said Dan. "It not only benefits Michigan, but the whole United States. Like air pollution, it affects everywhere in the world."

Dan's work isn't limited to the Lansing office of the DEQ; his work stretches throughout the state and even internationally. He has helped give important advice to assist officials from the Yunnan Environmental Protection Bureau to solve water pollution and groundwater problems in the Yunnan Province in China.

Dan also travels to China regularly to visit his family and often receives invitations to present seminars about "The Responsibilities of Regulatory Agencies in Waste Management" and "Optimum Development for Waste Disposal Resources" to various agencies and organizations in China.

Dan was born and raised in China and attended Hohai University in Nanjing, China, for both his bachelor's and master's degrees in civil engineering. In 1980, the United States sent its first geotechnical delegation to China where Dan met Professor Frank Richart from the University of Michigan. Professor Richart, who

is a widely renowned professor on soil dynamics, invited Dan to attend U of M. Dan took him up on the offer and received his Ph.D. in civil and environmental engineering with the specialty in geotechnical engineering in 1990.

Dan has held a range of important positions throughout the years, from lecturing at China 's Hohai University to working with Geolabs, Inc., in Hawaii as a Geotechnical Project Engineer and Laboratory Manager, to working as an adjunct assistant professor at the U of M. Dan really enjoys working at the DEQ. "I'm really proud of my position because it's become important for humans because we live in a small world."