

Jy S. Wu, Ph.D., P.E., P.H.



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Education:

Ph.D. -Rutgers-State University of New Jersey, Chemical Environmental Engineering
M.E. - Asian Institute of Technology, Environmental Engineering
B.C. - National Taiwan University, B.S. Chemical Engineering
P.E. - Registered Professional Engineer in Civil Engineering, North Carolina (#11327)
P.H. - Certified Professional Hydrologist (P.H.), American Institute of Hydrology (#671)

Academic:

Full Professor - current, University of North Carolina at Charlotte (UNC Charlotte)
Director of Infrastructure and Environmental Systems (INES) - Interdisciplinary Doctoral Program at UNC-Charlotte, 2012 – Present
Graduate Director of Civil Engineering at UNC Charlotte, 1989-2012
Directed more than 65 MS students and 10+ doctoral students
Honored Professor - China University of Mining and Technology
Visiting Professor – National Singapore University, Asian Institute of Technology
Chair in New Technology, Fulbright Scholar, 1997-1998.

Research Areas:

- ❖ Infrastructure and Environmental Systems
- ❖ Energy and the Environment
- ❖ Disaster Research and Management
- ❖ Watershed Management and Modeling
- ❖ Wastewater and Industrial Waste management

Professional Accomplishments (selected):

Received major grants from US Environmental Protection Agency, American Water Works Association Research Foundation, National Science Foundation, NC Division of Water Quality and NC Department of Transportation.
United Nations speakers on Water (Spain 2014) and Drought (NY 2015) Management Workshops.
Mitigation Fee Task Force Advisory Committee, Mecklenburg County, Charlotte, NC 2014-2014.
Invited workshop instructor for flood management in Kaohsiung, Taiwan, 2013
Recognized by Nissan American for research on renewables and energy efficiency, at the Ceremony of electric-vehicle charging stations donation to UNC-Charlotte, 2013.

Professional Publications (selected):

- Wu, J.S. and Allan, C. Vegetated swales for managing stormwater runoff from secondary roads. *Journal of Environmental Engineering*, ASCE. Under Review.
 - Wu, J.S., Tseng, H.K., Ferrell, J.C. and Liu, X. 2017. Transforming waste management operations to green energy initiatives: opportunities and challenges. *International Journal of Energy Economics and Policy*. 7(3):50-57.
 - Malinowski, P.A., Stillwell, A.S., Wu, J.S. and Schwarz, P.M. 2015. Energy-water nexus: potential energy savings and implications for sustainable integrated water management in urban areas from rainwater harvesting and gray-water reuse. *Journal of Water Resources Planning and Management*. 141(12):1-10.
 - Wu, J.S. and C.J. Allan. 2014. "Stormwater Characterization from Roadways with Open Graded Friction Course Surfaces." NCDOT. 149 pp.
 - Wu, J.S. and H.K. Tseng. 2014. "Energy and Economic Perspectives of Renewable Fuels." Second International Symposium on Energy and Finance Issues. ISEFI. France.
 - Wu, J.S., Tseng, H.K. and Liu, X. 2013. Affordability of electric vehicles for a sustainable transport system: an economic and environmental analysis. *Energy Policy*. 61:441-447.
 - Meng, Z., Wu, J.S. and Allan, C. 2013. Hydrologic connectivity for highway runoff analysis at watershed scale. Chapter 2:23-30, In: *Pragmatic Modeling of Urban Water Systems*, Monograph 21, Edited by W. James et al. Published by CHI, Guelph, ON, Canada.
 - Kaanagbara, L., Inyang, H.I., J.S. Wu and H. Hilger. 2010. Aromatic and Aliphatic Hydrocarbon Balance in Electric Transformer Oils. *Fuel*. 89(10):3114-3118.
 - Wu, J.S. and C.J. Allan. 2010. "Unified Methodology for Site Characterization and Sampling of Highway Runoff." *Front. Environ. Sci. Engin. China*. 4(1):47-58.
 - Wu, J.C. and Allan, C.J. 2008. Restoring and Assessing Fecal Coliform Impairment of Crowders Creek NC EW05020, *NC Division of Water Quality*, NCDENR. 62 pp.
 - Wu, J.S. and Allan, C.J. 2006. Evaluation and Implementation of BMPs for NCDOT's Highway and Industrial Facilities. *FHWA/NC/2006-02*, NCDOT. 157 pp.
 - Wu, J.S., Han, J., Annambhotla, S. and Bryan, S. 2005. Artificial Neural Networks for Forecasting Urban Watershed Runoff and Stream Flows. *J. of Hydrologic Engineering*, ASCE. 10(3):216-222
 - Wu, J.S., Han, J. and Allan, C. 2005. Suspended Sediment Removal by Vegetative Filter Strip treating Highway Runoff. *J. of Environmental Science and Health*. 40:1-13.
 - Wu, J.S., Langley, W. and Chao, C. 2001. Reaction Kinetics of Immobilized Cell Denitrification: I Background and Model Development. *J. of Environmental Engineering*, ASCE, 127(8):682-688.
 - Chiemchaisri, W., Wu, J.S. and Visvanathan, C. 2001. Methanotrophic Production of Extracellular Polysaccharide in Landfill Cover Soils. *Water Science and Technology*. 43(6):151-159.
 - Wu, J.S., C.J. Allan, W. Saunders and J.B. Evett. 1998. "Characterization and Pollutant Loading Estimation for Highway Runoff." *Journal of Environmental Engineering*, ASCE, 124(7):584-592. < cited by 271 as of 2014, 286 as of 2015, and 326 as of August 2017 >
 - Nitorisavut, S., Wu, J.S., Reasoner, D. and Chao, C. 1997. Columnar Biological Treatability of Assimilable Organic Carbon under Oligotrophic Conditions. *Journal of Environmental Engineering*, ASCE, 123(3):290-296.
 - Wu, J.S., R. Holman and J. Dorney. 1996. Systematic Evaluation of Pollutant Removal of Urban Wet Detention Ponds. *Journal of Environmental Engineering*, ASCE, 122(11):983-988.
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