Mohamed M. Hantush, Research Hydrologist in EPA's National Risk Management Research Laboratory

Land and Materials Management Division
Mailing Address

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Area of Expertise:

- Groundwater and surface water hydrology
- Fate and transport in porous media
- Stochastic processes and uncertainty estimation
- Distributed hydrologic and water quality modeling
- Eco-hydrologic modeling

Select Publications:

Mallya, G., **M. M. Hantush**, R. S. Govindaraju. 2018. Composite measures of watershed health from a water quality perspective. Journal of Environmental Management. 214, 104-124.

Sharifi, A., **M. M. Hantush**, and L. Kalin. 2017. Modeling Nitrogen and Carbon dynamics in wetland soils and water using a mechanistic wetland model. Journal of Hydrologic Engineering. DOI:10.1061/(ASCE)HE.1943-5584.0001441.

Kalin, L., **M. M. Hantush**, M. Rezaeianzadeh. 2017. "Wetland Hydrology", In Handbook of Applied Hydrology, Second Edition, © 2017 by McGraw-Hill Education, Edited by Vijay Singh.

Hantush, M. M. and A. Chaudhary. 2014. Bayesian framework for water quality model uncertainty estimation and risk management. Journal of Hydrologic Engineering. 19(9), 04014015-1-14.

Hantush, M. M., L. Kalin, S. Isik, A. Yucekaya. 2013. Nutrient Dynamics in Flooded Wetlands: I. Model Development. Journal of Hydrologic Engineering, 18(12), 1724-1738.

Hantush, M. M. 2007. Modeling nitrogen-carbon cycling and oxygen consumption in bottom sediments. Advances in Water Resources, 30, 59-79.

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Education:

- Ph.D., University of California, Davis, CA; Civil and Environmental Engineering, 1993
- M.S., University of California, Davis, CA; Civil and Environmental Engineering, 1988
- B.S., University of Kuwait, Kuwait; Civil Engineering, 1985

Professional Experience:

Committees and Memberships

- Section Editor (Subsurface Hydrology), ASCE Journal of Hydrologic Engineering (2012-present
- Scientific Advisory Board, Exposure and Health (formerly, Water Quality, Exposure and Health) (2016-present)
- Associate Editor, Journal of Water Quality, Exposure and Health (2011-2016)
- Associate Editor, ASCE Journal of Hydrologic Engineering (2004-2012)
- ASCE Journal of Hydrologic Engineering Best Papers Award Committee Chair (2013, 2015, 2017)
- ASCE Environmental Water Resources Institute (EWRI) Arid Land Award and Ven Te Chow Award Committees (2016, 2017)
- ASCE Environmental Water Resources Institute (EWRI) Surface Water Hydrology Technical Committee (May 2007-present, Control Member)
- EWRI Wetland Hydrology Task Committee (Chair 2014-2015, Vice Chair: 2011-2013)
- EWRI Wetland Processes Modeling Task Committee (Chair, 2011-2016)
- EWRI TMDL Analysis and Modeling Task Committee (2011- present)
- Practitioner Advisory Board, Chow's Handbook of Applied Hydrology, 2016
- Affiliate Assistant Professor, School of Forestry and Wildlife Sciences, Auburn University (2007-present); Serve on Ph.D. thesis committee
- Member, American Geophysical Union (AGU)
- Member, American Society of Civil Engineers, AM (ASCE)
- Member, Environmental Water Resources Institute (EWRI)
- Member, International Association of Hydrologic Sciences (IAHS)

Honors and Awards

- Elected Fellow of the ASCE Environmental & Water Resources Institute (2015)
- EPA Scientific and Technological Achievement Award (STAA) Level III for Developing a Process-Based Nutrient Wetland Model (2015)
- U.S. EPA ORD Honor Award (2013) for Outstanding Technical Support to Region 10
- EPA STAA Award Honorable Mention (2012)
- First recipient of Journal of Hydrologic Engineering Outstanding Associate Editor Award (2012)
- U.S. EPA ORD Honor Award (2009) for outstanding technical support to EPA Region 3
- EPA STAA Award Level II for Contributing Novel Analysis and Methodology to Effective Watershed Modeling (2009)
- EPA STAA Award Honorable Mention (2006)
- EPA STAA Award Level III for Developing Models for Soil, Air, and Groundwater-Vulnerability Assessment and Management of the Use and Disposal of Organic Compounds (2005)
- Environmental Protection Agency Special Achievement Award (August, September 2000)

- Best Referee, Journal of Irrigation and Drainage Engineering, ASCE, 2000