



# Biography

Department of the Army



## Jane McKee Smith

Senior Research Scientist for Hydrodynamic  
Phenomenon  
Engineer Research and Development Center, Coastal  
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Area of responsibility is basic and applied research in coastal processes, river engineering, and sedimentation and the associated hydrodynamic processes. Research focuses: coastal hydrodynamics, including nearshore waves and currents, storm surge, wave-current interaction, wave generation and shallow-water wave transformation.

### CAREER CHRONOLOGY:

- 2015–present: Senior Research Scientist for Hydrodynamic Phenomenon, Engineer Research and Development Center (ERDC), Coastal and Hydraulics Laboratory
- 2005-2015: Research Civil Engineer, Engineer Research and Development Center
- 1991-2005: Research Hydraulic Engineer, Engineer Research and Development Center
- 1983-1991: Hydraulic Engineer, Waterways Experiment Station

### COLLEGE:

- University of Delaware, Newark, Delaware, 1996, PhD Civil Engineering
- Mississippi State University, Starkville, Mississippi, 1986, MS Civil Engineering
- South Dakota State University, Brookings, South Dakota, 1983, BS Civil Engineering

### CERTIFICATIONS:

- Professional Engineer, Mississippi, 11418
- Diplomat, Coastal Engineering, Academy of Coastal, Ocean, Port and Navigation Engineers

### AWARDS AND HONORS:

- National Academy of Engineering
- South Dakota State University Distinguished Engineer, 2015
- American Society of Civil Engineers Distinguished Member, 2014
- South Dakota State University Distinguished Alumni Award for Professional Achievement, 2013
- US Army Corps of Engineers Product Delivery Team of the Year: The North Atlantic Coast Comprehensive Study, 2015

- ERDC Research and Development Achievement Award, 2011, 2008
- American Society of Civil Engineers Government Civil Engineer of the Year, 2010
- Superior Civilian Service Award, Dept. of the Army, 2009, 2007
- ERDC Award for Outstanding Team Work, 2008
- Waterways Experiment Station Woman of the Year, 1987

#### **PROFESSIONAL MEMBERSHIPS AND ASSOCIATIONS:**

- Coastal Engineering Research Council, American Society of Civil Engineers (ASCE), 2001-2012, Chair, 2014-present
- Editorial Board, Coastal Engineering, 2014-present
- Editorial Board, Journal of Waterway, Port, Coastal and Ocean Engineering, 2015-present
- ASCE Society Awards Committee, 2015-2017
- Adjunct Professor, Mississippi State University, 2008-present
- Member, ASCE and Coasts, Oceans, Ports, and Rivers Institute
- Member, American Geophysical Union

#### **MAJOR PUBLICATIONS:**

- Smith, J.M., M.E. Anderson, and T.V. Wamsley. 2016. Wetland Buffers: Numerical Modeling of Wetland Wave Dissipation. *Earth Surface Processes and Landforms*.
- Jensen, R.E., A. Cialone, J.M. Smith, M.A. Bryant, and T.J. Hesser. 2016. Regional wave modeling and evaluation for the North Atlantic Coast Comprehensive Study, Journal of Waterway, Port, Coastal, and Ocean Engineering.
- Smith, J.M., A.A. Taflanidis, and A.B. Kennedy. 2014. Surrogate modeling for hurricane wave and inundation prediction, Coastal and Ocean Engineering Practice, Vol 2, World Scientific.
- Anderson, M.E., and J.M. Smith. 2014. Wave attenuation by flexible, idealized salt marsh vegetation. *Coastal Engineering*, 83, 82-92.
- CIRIA, French Ministry of Ecology, and USACE. 2013. The International Levee Handbook, C731, CIRIA, London (ISBN: 978-0-86017-734-0), 1332 pp.
- Jadhav, R.S., Q. Chen, and J.M. Smith. 2013. Spectral distribution of wave energy dissipation by salt marsh vegetation. *Coastal Engineering*, 77, 99-107.
- Atkinson, J., J.M. Smith, and C. Bender. 2013. Sea level rise effects on storm surge and nearshore waves on the Texas coast: Influence of landscape and storm characteristics, *J. Waterway, Port, Coastal, and Ocean Engineering*, 139(2), 98-117.
- Taflanidis, A., A. Kennedy, J. Westerink, J. Smith, K. Cheung, M. Hope, S. and Tanaka. 2013. Rapid assessment of wave and surge risk during landfalling hurricanes: Probabilistic approach. *J. Waterway, Port, Coastal, Ocean Eng.*, 139(3), 171-182.
- Bender, C., J.M. Smith, A. Kennedy, and R. Jensen. 2013. STWAVE Simulation of Hurricane Ike: model results and comparison to data. *Coastal Engineering*, 73, 58-70.
- Kennedy, A.B., J.J. Westerink, J.M. Smith, et al. 2012. Tropical cyclone inundation potential on the Hawaiian Islands of Oahu and Kauai. *Ocean Modeling*, 52-53, 54-68.
- Sheremet, A., J.M. Kaihatu, S.-F. Su, E.R. Smith, and J.M. Smith. 2011. Modeling of nonlinear wave propagation over fringing reefs. *Coastal Engineering*, 58, 1125-1137.
- Howes, N.C., D.M. FitzGerald, Z.J. Hughes, I.Y. Georgiou, M.A. Kulp, M.D. Miner, J.M. Smith, and J.A. Barras. 2010. Hurricane-induced failure of low salinity wetlands. *Proceedings of the National Academy of Sciences USA*, 107(32), 14014-14019.
- Smith, J. M., Mary A. Cialone, Ty V. Wamsley, and Tate O. McAlpin. 2009. Potential impact of sea level rise on coastal surges in southeast Louisiana. *Ocean Engineering*, 37(1), 37-47.
- Cavaleri, L., J.-H. Alves, F. Ardhuin, A. Babanin, M. Banner, K. Belibassakis, M. Benoit, M. Donelan, J. Groeneweg, T.H.C. Herbers, P. Hwang, P.A.E.M. Janssen, T. Janssen, I.V. Lavrenov, R. Magne, J. Monbaliu M. Onorato, V. Polnikov, D. Resio, W.E. Rogers, A. Sheremet, J.M. Smith, H.L. Tolman, G. van Vledder, J. Wolf, I. Young. 2007. Wave modeling -- the state of the art. *Progress in Oceanography*, 74(4), 603-674.