RANDALL LEE KOLAR
David Ross Boyd and Austin Presidential Professor

Affiliation and Contact

School of Civil Engineering and Environmental Science
University of Oklahoma, Norman, OK 73019
Phone: (405) 325-4267 Fax: (405) 325-4217   E-mail: kolar@ou.edu

Professional Preparation

University of Notre Dame, Ph.D. (Civil Engineering), 1992.
University of Idaho, B.S. (Civil Engineering), 1983, Summa Cum Laude.
University of Idaho, B.S. (Mathematics), 1983, Summa Cum Laude.

Appointments

8/13 - Present	Director, School of Civil Engineering and Environmental Science
7/07 - 6/08	Professor, University of Oklahoma
7/01 - 6/07	Associate Professor, University of Oklahoma
8/95 - 6/01	Assistant Professor, University of Oklahoma
9/93 - 8/95	Assistant Professor, University of New Haven

Ten Selected Publications

K.M. Geohegan, P. Fitzpatrick, R.L. Kolar, and K.M. Dresback, "Evaluation of a Synthetic Rainfall Model, P-CLIPER, for Use in Coastal Flooding", *Natural Haz.*, 92(2), pp. 699-726, 2018.

C.M. Szpilka, K.M. Dresback, R.L. Kolar, C. Massey, "Improvements for the Eastern North Pacific ADCIRC Tidal Database (ENPAC15)", *Journal of Marine Science and Engineering*, 6(4), 131; doi: 10.3390/jmse6040131, 2018.

R.A. Davidson, L.K. Nozick, T. Wachtendorf, B.O. Blanton, B. Colle, R.L. Kolar, S. DeYoung, K.M. Dresback, W. Yi, K. Yang, N. Leonard, "An Integrated Scenario Ensemble-Based Framework for Hurricane Evacuation Modeling: Part 1- Decision Support System," *Risk Analysis*, doi:10.1111/risa.12990, 2018.

B. Blanton, B. Colle, R. Kolar, K. Dresback, H. Vergara, N. Leonardo, Y. Hong, et al., "An Integrated Scenario Ensemble-Based Framework for Hurricane Evacuation Modeling: Part 2-Hazard Modeling," doi: 10.1111/risa.13004, *Risk Analysis*, 2018.

H. Vergara, P. Kirstetter, J.J. Gourley, Z.L. Flamig, Y. Hong, A. Arthur, R.L. Kolar, "Esimating A-priori Kinematic Wave Model Parameters Based on Regionalization for Flash Flood Forecasting in the Conterminous US," *J. of Hydrology*, 541, pp 421-433, 2016.

G.A. Fox, A. Sheshukov, R. Cruse, R.L. Kolar, et al., "Reservoir Sedimentation and Upstream Sediment Sources: Perspectives and Future Research Needs on Streambank and Gully Erosion," *Environmental Management*, 57(5), pp. 945-955, 2016.

D. Sabatini, J. Chamberlain, R. Dreibelbis, Y. Hong, R. Kolar, R. Knox, and R. Nairn, "The University of Oklahoma WaTER Center - Water Security: Quantity, Quality, Equity," *Water Resources Impact* (special issue on Hydrophilanthropy), 18(1), pp. 17-19, 2016.

K. Dresback, et al., "Skill Assessment of a Prototype Total Water Level Operational Forecast System During Hurricane Irene (2011)," *Cont. Shelf Res.*, 71, pp. 78-94, 2013.

G. Smith, J. Whitehead, N. Kazi, J. Park, J. Pine, R. Kolar, D. Sander, E. Thomas, "Aggregate Flood Hazard Risk Reduction Scoping Project," Report to: DHS Coastal Hazards Center, 78 pp., 2013.

S. Van Cooten, et al., "The CI-FLOW Project: A System for Total Water Level Prediction from the Summit to the Sea," *B. of the American Metr. Soc.*, 92 (11), pp. 1427-1442, 2011.

Selected Funded Projects

"Steps Towards Automating River Connections and Addressing Precipitation in ADCIRC," **NOAA**, CoPI, $101,060 total, 7/1/18 - 6/30/19.

"A Watershed Approach to Ecosystems Conservation, Management, and Restoration: Support for Grand Lake o' the Cherokees Watershed Planning," **GRDA**, CoPI, $2,466,670 total, 6/1/15 - 5/31/20.

"Hazards SEES Type 2: Dynamic Integration of Natural, Human, and Infrastructure Systems for Hurricane Evacuation and Sheltering," **NSF**, PI (on subcontract with U. Delaware, $3M project), $476,497 total, 9/1/13 - 8/31/17.

"Performance Optimization of the ADvanced CIRCulation (ADCIRC) Model," **Intel Corporation**, PI, $300,000 total, 4/1/14 - 3/31/17.

 "The Center for Natural Disasters, Coastal Infrastructure, and Emergency Management," **DHS Center of Excellence**, PI on UNC subcontract, $716,615 total, 7/1/08 - 6/30/14.

"Next Generation ADCIRC Tidal Database: Phase I - East Coast," **NOAA**, CoPI, $75,000 total, 10/1/11 - 4/30/13.

"Next Generation ADCIRC Tidal Database: Phase II - West Coast," **US Army Corps**, CoPI, $75,000 total, 2/19/13 - 10/15/15.

"Hydrodynamic Modeling in Support of the OCPR 2012 Coastal Master Plan," **ARCADIS (DoD Army Corps flow-through),** $36,900 total; 4/10/12-4/9/13.

Synergistic Activities

Lead investigator for subcontract with NOAA and UNC's DHS Center of Excellence: Coastal Hazards Center and U. Delaware's NSF Hazards SEES. Responsible for coupling of upland hydrology model to the coastal hydrodynamic model, ADCIRC. This system was put into pseudo-operational mode in June 2010 to provide guidance to emergency managers. Current work couples it to an evacuation/sheltering model.

Assoc. Director of the WaTER (Water Technologies of Emerging Regions) Center at OU. Assisted with Center formation in 2006 and helped develop its vision and mission. Assist with Center activities, including educational programs, biennial WaTER Prize and Symposium, hosting the OU Int'l WaTER Conference, and development work.

Awards for research and educational initiatives: David Ross Boyd Professorship (2014), OU Presidential Prof. (2008), the College Teaching Award (2007-2008), OK Regent's Award for Superior Teaching (2006), the College Teaching Scholar Award (2005), ASEE's Dow Outstanding New Faculty Member Award (2000), OU's BP/Amoco Good Teaching Award (2000), and OK Regents' Williams Innovator Award (2000), and the OK Regents' Instructional Technology Excellence Award (1999).