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Education

- **Ph.D.** Environmental Engineering Sciences, University of Florida — May 2006
- **M.E.** Environmental Engineering Sciences, University of Florida — Dec 2001
- **B.S.** Environmental Studies, Richard Stockton College of New Jersey — May 1996

Research and Professional History

- **Associate Professor** — July 2013 – present
  Department of Agricultural and Biological Engineering, University of Florida
- **Assistant Professor** — September 2007 – June 2013
  Department of Agricultural and Biological Engineering, University of Florida
- **Post-Doctoral Research Associate** — May 2006 – August 2007
  Department of Agricultural and Biological Engineering, University of Florida

Teaching Experience

ABE 4905	Hydro-Climate Investigations (Independent Study)
ABE 4905	Rainwater Harvesting (Independent Study)
ABE 6254	Simulation of Agricultural Watersheds
ABE 6905	Streamflow Forecasts (Independent Study)
ABE 6905	Ensemble Forecasting of Drought (Independent Study)
ALS 3133	Agriculture and Environmental Quality
ENV 5518	Field Methods in Environmental Hydrology

Refereed Publications

Khare, Y.P., Muñoz-Carpena, R., Rooney, R.W., and **C.J. Martinez**. 2015. A multi-criteria trajectory-based parameter sampling strategy for the screening method of elementary effects. *Environmental Modeling and Software*, 64: 230-239.

Tian, D., **Martinez, C.J.**, Graham, W.D., and S. Hwang. 2014. Statistical downscaling of multi-model forecasts for seasonal precipitation and surface temperature over the southeastern USA. *Journal of Climate*, 27(22): 8384-8411.

Tian, D., **Martinez, C.J.** and T. Asefa. Improving short-term urban water demand forecasts using forecast analogs of the Global Ensemble Forecast System (GEFS). Submitted to Journal of Hydrology.

Risko, S.L. and **C.J. Martinez**. 2014. Forecasts of seasonal streamflow in west-central Florida using multiple climate predictors. *Journal of Hydrology*, 519(A): 1130-1140.

Tian, D. and **C.J. Martinez**. 2014. The GEFS-based daily reference evapotranspiration (ETo) forecast and its implication for water management in the southeastern United States. *Journal of Hydrometeorology*, 15(3): 1152-1165.

Tian, D., **Martinez, C.J.**, and W.D. Graham. 2014. Seasonal prediction of regional reference evapotranspiration based on Climate Forecast System version 2. *Journal of Hydrometeorology*, 15(3): 1166-1188.

Tabari, H., Hosseinzadeh-Talaee, P.,Willems, P., and **C.J. Martinez**. 2014. Validation and calibration of solar radiation equations for estimating daily reference evapotranspiration at cool semi-arid and arid locations. *Hydrological Sciences Journal*, In Press.

Khare, Y.P., **Martinez, C.J.**, and R. Muñoz-Carpena. 2013. Parameter variability and drought models: A study using the Agricultural Reference Index for Drought (ARID). *Agronomy Journal*, 105(5): 1417-1432.

Bolson, J.B, **Martinez, C.J.**, Srivastava, P., Breuer, N. and P. Knox. 2013. Climate information use among Southeast U.S. water managers: Beyond barriers and towards opportunities. *Regional Environmental Change*, 13(1): 141-151.

Hendricks, G.S., Shukla, S., Kiker, G.A., and **C.J. Martinez**. 2013. A modified model for simulating hydrologic processes for plastic mulch production systems. *Journal of Irrigation and Drainage Engineering*, 139(9): 738-746.

Pandey, V., Kiker, G.A., and **C.J. Martinez**. 2013. Modeling cattle distribution in southern Florida pasture agro-ecosystems: Implications based on forage, shade, and water availability. *Biological Engineering Transactions*, 6(2): 59-81.

Johnson, N.T., **Martinez, C.J.**, Kiker, G.A., and S. Leitman. 2013. Pacific and Atlantic Ocean influences on streamflow in the Apalachicola-Chattahoochee-Flint river basin. *Journal of Hydrology*, 489: 160-179.

Tabari, H., **Martinez, C.J.**, Ezani, A., and P.H. Talaee. 2013. Applicability of support vector machines and adaptive neurofuzzy inference system for potato crop evapotranspiration forecasting. *Irrigation Science*, 31(4): 575-581.

Khare, Y.P., **Martinez, C.J.**, and G.S. Toor. 2012. Water quality trends and land use changes in the Alafia and Hillsborough River Watersheds, Florida, USA. *Journal of the American Water Resources Association*, 48(6): 1276-1293.

Tian, D. and **C.J. Martinez**. 2012. Comparison of two analog-based downscaling methods for regional reference evapotranspiration forecasts. *Journal of Hydrology*, 475: 350-364.

Tian, D. and **C.J. Martinez**. 2012. Forecasting reference evapotranspiration using retrospective forecast analogs in the southeastern United States. *Journal of Hydrometeorology*, 13(6): 1874-1892.

Hwang, S., **Martinez, C.J.**, and T. Asefa. 2012. Assessing the benefits of incorporating rainfall forecasts into monthly flow forecast system of Tampa Bay Water, Florida. *Journal of the Korean Society of Agricultural Engineers* 54(4): 127-135.

Martinez, C.J., Maleski, J.J., and M.F. Miller. 2012. Trends in precipitation and temperature in Florida, USA. *Journal of Hydrology*, 452-453: 259-281.

Carey R.O., Hochmuth G.J., **Martinez C.J.**, Boyer T.H., Dukes M.D., Toor G.S., and Cisar J.L. 2012. Evaluating nutrient impacts in urban watersheds: Challenges and research opportunities. *Environmental Pollution*, 173: 138-149.

Carey, R.O., Hochmuth, G.J., **Martinez, C.J.**, Boyer, T.H., Nair, V.D., Dukes, M.D., Toor, G.S., Shober, A.L., Cisar, J.L., Trenholm, L.E., and JB. Sartain. 2012. Regulatory and resource management for urban watersheds: The Florida experience. *HortTechnology*, 22(4): 418-429.

Carey, R.O., Hochmuth, G.J., **Martinez, C.J.**, Boyer, T.H., Nair, V.D., Dukes, M.D., Toor, G.S., Shober, A.L., Cisar, J.L., Trenholm, L.E., and JB. Sartain. 2012. A review of turfgrass fertilizer management practices: Implications for urban water quality. *HortTechnology*, 22(3): 280-291.

Thepadia, M. and **C.J. Martinez**. 2012. Regional calibration of solar radiation and reference evapotranspiration estimates with minimal data in Florida. *Journal of Irrigation and Drainage Engineering*, 138(2): 111-119.

Hwang, S., Graham, W.D., Hernandez, J., **Martinez, C.J.**, Jones, J.W. and A. Adams. 2011. Quantitative spatiotemporal evaluation of dynamically downscaled MM5 precipitation predictions over the Tampa Bay region, Florida. *Journal of Hydrometeology*, 12(6): 1447-1464.

Homayoun-Far, M., Ganji, A., and **C.J. Martinez**. 2011. A novel solution for stochastic dynamic game of water allocation from a reservoir using collocation method. *Water Resources Management*, 25(13): 3427-3444.

Convertino, M., Elsner, J.B., Muñoz-Carpena, R., Kiker, G.A., **Martinez, C.J.**, Fischer, R.A., and I. Linkov. 2011. Do tropical cyclones shape shorebird patterns? Biogeoclimatology of snowy plovers in Florida. *PLoS One*, 6(1): e15683. doi:10.1371/journal.pone.0015683.

Convertino, M., G.A. Kiker, M.L. Chu-Agor, R. Muñoz-Carpena, **C.J. Martinez**, M. Aiello-Lammens, H.R. Akçakaya, R.A. Fischer, I. Linkov. 2011. Integrated Modeling To Mitigate Climate Change Risk Due To Sea Level Rise: Imperiled Shorebirds on Florida Coastal Military Installations. In: I. Linkov and T.S. Bridges (eds.), Climate: Global Change and Local Adaptation. pp. 431-465. NATO Science for Peace and Security Series C: Environmental Security. Springer, Boston.

Martinez, C.J. and J.W. Jones. 2011. Atlantic and Pacific sea surface temperatures and corn yields in the southeastern USA: Lagged relationships and forecast model development. *International Journal of Climatology*, 31(4): 592-604.

Martinez, C.J. and M. Thepadia. 2010. Estimating reference evapotranspiration with minimum data in Florida, USA. *Journal of Irrigation and Drainage Engineering*, 136(7): 494-501.

Martinez, C.J., Baigorria, G.A., and J.W. Jones. 2009. Use of climate indices to predict corn yields in the southeast USA. *International Journal of Climatology*, 29(11): 1680-1691.

Martinez, C.J., Campbell, K.L., Annable, M.D., and G.A. Kiker. 2008. An object-oriented hydrologic model for humid, shallow water-table environments. *Journal of Hydrology*, 351: 368-381.

Kiker, G.A., Clark, D.J., **Martinez, C.J.**, and R.E. Schulze. 2006. A Java-based, object-oriented modeling system for southern African hydrology. *Transactions of the American Society of Agricultural and Biological Engineers*, 49(5): 1419-1433.

Wang, H., Jawitz, J.W., White, J.R., **Martinez, C.J.**, and M.D. Sees. 2006. Rejuvenating the largest municipal treatment wetland in Florida. *Ecological Engineering*, 26(2): 132-146.

Martinez, C.J., and W.R. Wise. 2003. Analysis of constructed treatment wetland hydraulics with the transient storage model OTIS. *Ecological Engineering*, 20(3): 211-222.

Martinez, C.J., and W.R. Wise. 2003. Hydraulic analysis of the Orlando Easterly Wetland. *Journal of Environmental Engineering*, 129(6): 553-560.

Invited Presentations (Selected)

Martinez, C.J. Projects of the Florida Water and Climate Alliance: Community building to create actionable science. Presented at the Southeast Climate Consortium Program Review. Tallahassee, Florida, May 7-9, 2014.

Martinez, C.J. 2013. Has Florida's climate changed? Results of long-term and recent trends and possible human and natural causes. Presented at the University of Florida, Institute of Food and Agricultural Sciences, Belle Glade Research and Education Center, Belle Glade, Florida, February 1, 2013.

Martinez, C.J. 2012. Florida's wicked water issues. Presented at the University of Florida, Institute of Food and Agricultural Sciences, Tri-County (Hillsborough, Pasco, Pinellas) Water School, September 11 – 12, 2012.

Martinez, C.J. 2012. Are hydrologists from Venus and climatologists from Mars? Why don't water resource managers use seasonal climate forecasts? – A survey in the SE USA. American Society of Agricultural and Biological Engineers Annual International Meeting, Dallas, Texas, July 29 – August 1, 2012.

Martinez, C.J. 2012. Shifting tides: Florida's changing water quality regulations. Presented at the University of Florida, Institute of Food and Agricultural Sciences, Manatee County Water School, April 26 – 27, 2012.

Martinez, C.J. 2011. Communication and outreach activities in support of the NIDIS drought early warning system. Presented at the NIDIS Drought Early Warning System Pilot Review and Future Directions. Buford, Georgia, December 1 – 2, 2011.

Martinez, C.J. 2011. Forecasting evapotranspiration in the southeast USA. Presented at the NIDIS Drought Early Warning System Pilot Review and Future Directions. Buford, Georgia, December 1 – 2, 2011.

Martinez, C.J. 2010. LandAp2010: A spreadsheet water balance tool for reclaimed water land application wet-weather storage. Presented at the Florida Water Environment Association, Big Bend Chapter, Effluent Disposal Seminar. Tallahassee, Florida, December 8, 2010.

Srivastava, P., Martinez, C.J. and J. Bolson. 2010. NIDIS-Supported Efforts in the ACF River Basin. Presented at the Southeast Climate Outlook Forum/NIDIS Full Basin Meeting. Albany, Georgia, November 18 – 19, 2010.

Martinez, C.J. 2010. Incorporation of climate forecasts in municipal water resource management. Presented at the Southeast Climate Consortium Program Review. Raleigh, North Carolina, May 23 – 26, 2010.

Martinez, C.J., Jones, J.W. and W.D. Graham. 2007. Tampa Bay Water: Use of climate forecasts to reduce risks in regional water supply management. Presented at the Southeast Climate Consortium Program Review. Griffin, Georgia, May 14 – 16, 2007.

Professional Service

- Associate Editor of the Florida Watershed Journal, 2009 - 2010
- Awards Vice-Chair, American Soc. of Agricultural and Biological Eng., Florida Section, 2010 - 2011
- Board of Directors, Florida Natural Resources Leadership Institute, 2012 - present
- Chair, Education and Outreach Committee, National Oceanic and Atmospheric Administration (NOAA), National Integrated Drought Information System (NIDIS), Southeast Drought Early Warning pilot project, 2010 - 2012
- Chair, Extension Committee, Agricultural and Biological Eng. Dept., Univ. of Florida, 2013 - present
- Chair, Hydrologic Sciences Academic Cluster, University of Florida, 2013 – present
- Chair, Section Steering Committee, American Soc. of Agricultural and Biol. Eng., 2011 - present
- Faculty advisor, Univ. of FL. student chapter of the American Water Resources Assn., 2008 – present
- Founding Editor, Florida Watershed Journal, 2008 - 2009
- Grant panel reviewer: Economic and Social Research Council, Fonds québécois de la recherche sur la nature et les technologies (FQRNT), NOAA, United States Geological Survey (USGS)
- Judge, Florida State Science and Engineering Fair, 2011 - present
- Member, Lakes, Vegetation and Landscape Committee, University of Florida, 2013 – present
- Member, Sustainability Committee, University of Florida, 2013 - present
- Membership Vice-Chair, American Soc. of Agricultural and Biol. Eng., FL Section, 2008 – 2010
- Participant (Invited), Piloting Utility Modeling Applications (PUMA) workshop, 2010
- Participant (Invited), Water Research Foundation, research agenda workshop, 2010
- Professional Development Panel Member (Invited), NASA Innovations in Climate Education: Advancing Student Knowledge through Teacher Education (ASK Florida NICE)
- Secretary, American Society of Agricultural and Biological Engineers, FL Section, 2011 – present
- Secretary, Florida Natural Resources Leadership Institute Board of Directors, 2012 - present
- Surface Water representative, Hydrologic Sciences Academic Cluster, Univ. of Florida, 2012- present
- Technical Co-Chair, American Water Resources Association, Annual Conference, 2012

Honors and Awards

- Chi Epsilon, Civil Engineering Honor Society, 2003 – present
- Engineering Intern, State of Florida # 1100008170, March 2003
- Extension Initiative Innovation Team Award, Institute of Food and Agricultural Sciences, University of Florida, 2014
- Extension Initiative Innovation Team Award, Institute of Food and Agricultural Sciences, University of Florida, 2013
- John and Martha Woeste Professional Development Award, Institute of Food and Agricultural Sciences, University of Florida, 2011

- National Needs Fellow, United States Department of Agriculture, 2002 - 2006
- Young Extension Worker Award, American Society of Agricultural and Biological Engineers, Florida Section, 2010
- Young Researcher Award, American Society of Agricultural and Biological Engineers, Florida Section, 2013

Professional Affiliations (Active)

- American Geophysical Union, 2001 – present
- American Meteorological Society, 2009 – present
- American Society of Agricultural and Biological Engineers, 2002 – present
- American Society of Civil Engineers, 2001 – present
- American Water Resources Association, 2000 – present
- Florida Natural Resources Leadership Institute, 2012 – present
- Florida Section of the American Society of Agricultural and Biological Engineers, 2002 – present