



Position: Postdoctoral fellow

Location: Indian River Research and Education Center (IRREC), Fort Pierce Florida

Contact: Dr. Sandra M. Guzmán
Department of Agricultural and Biological Engineering
Indian River Research and Education Center
University of Florida
sandra.guzmangut@ufl.edu

Special Instructions to Applicants: Applicants must submit an application package including cover letter highlighting specific experience related to this position, Curriculum Vitae, list of publications, unofficial transcripts, and contact information of two references. For questions, contact Dr. Guzmán at sandra.guzmangut@ufl.edu. Send the application package to this email address.

Advertised Salary: commensurate with education and experience

Responsibilities:

- Maintain and update IoT based decision support systems for irrigation scheduling and apply machine learning algorithms using real-time in field sensor data from affiliates.
- Conduct research on time series analysis for nutrient management in soil and water with an emphasis on agrohydrological processes.
- Study the integration of sensor-based irrigation and nutrient management with crop production and environmental stewardship.
- Project management and leadership in extension activities for the development of educational programs focused on empowering stakeholders to make water and nutrient management decisions using data. Travel for official duties around Florida is required. Attendance at weekend meetings might be required.
- Work with hydrological and crop models to simulate water management issues in Florida
- Develop research proposals to secure external funding for research projects, prepare peer-reviewed research and extension articles, reports, and presentations
- Coordinate activities with graduate students and OPS assistants to perform field work, extension activities, and modeling/simulation
- The person is required to have a valid driver's license and be able to drive vehicles to the field.

Required Education: Ph.D. in agricultural, civil, electrical/electronics, environmental engineering, soil water resources or related fields

Required Experience: experience installing maintaining and analyzing data from in-ground sensors (soil water and nutrients), data analysis focused on time series analysis, Internet of Things and machine learning, development of decision support systems, soil-plant-water sampling protocols, and stakeholder engagement.

Especial Knowledge/skills: experience with hydrological and crop modeling. Programming experience with Phyton (R, or Matlab equivalent) databases, ArcMap, and data analysis tools



Background Information:

The postdoctoral associate will work in the Smart Irrigation and Hydrology, (SIAH) Agricultural engineering team (<https://abe.ufl.edu/people/faculty/sandra-guzman/>) at the Indian River Research and Education Center (<https://irrec.ifas.ufl.edu/>). The Indian River Research and Education Center is a unit of the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida and is located on a 700-acre site west of Fort Pierce, St. Lucie County. Fort Pierce is located on the east coast of Florida, 50 miles north of West Palm Beach, with direct access to the diverse Indian River Lagoon and Atlantic Ocean. The internationally recognized research center is located in a major agricultural region in which water resources, tourism, and agriculture are at the forefront. The IRREC- SIAH laboratory is an interdisciplinary unit of the Florida Agricultural Experiment Station, the Florida Extension Service, the College of Engineering and the college of Agriculture and Life Sciences.

FOLLOW US IN SOCIAL MEDIA:



<https://twitter.com/UFwatersan>



[Guzman Ag engineering- water lab](#)



[Smart Irrigation & Hydrology Lab IRREC-UF](#)