POSITION ANNOUNCEMENT # 00014990
REQUISITION # 494861

Title: Assistant Professor in Utility Analytics for Sustainable Planning

Location: Agricultural and Biological Engineering (ABE), Center for Landscape Conservation and Ecology (CLCE), Program for Resource Efficient Communities (PREC) and Institute of Food and Agricultural Sciences (IFAS) University of Florida, Gainesville, Florida

Salary: Commensurate with Qualifications and Experience

Review Date: For full consideration, candidates should apply and submit additional materials by November 15, 2015. The position will open until a viable applicant pool is determined.

Duties and Responsibilities
This is a 12-month tenure-accruing position that will be 60% research (Florida Agricultural Experiment Station) and 40% extension (Florida Cooperative Extension Service) at the Department of Agricultural & Biological Engineering (ABE) with a joint appointment in the Program for Resource Efficient Communities (PREC) and the Center for Landscape Conservation and Ecology (CLCE), within the Institute of Food and Agricultural Sciences at the University of Florida with tenure accruing in ABE. This assignment may change in accordance with the needs of the unit. Duties will include developing active, successful, nationally recognized and externally funded research and extension programs in the area of utility analytics applied to land use, water and energy. As part of the Cooperative Extension duties this faculty will work with water/energy utilities, property appraisers, land development professionals, regulators, policy-makers and others to develop data sets, statistical tools and protocols for direct evaluation of water, energy and other resource consumption patterns associated with diverse land development ranging from the lot level to full communities. Florida’s land development codes and regulations have often developed in response to crises; such as severe wind and flood impacts that may have unrecognized long-term effects such as facilitating recurrent development in disaster prone areas. Growing concerns over available water resources and water quality impacts associated with development practices, landscape choice and management need to be evaluated in a larger context. Emerging strategies with the intent to reduce resource consumption must be quantitatively assessed to verify that these strategies are not only technically applicable, but also socially acceptable and being utilized in a manner to optimize benefit. Standard requirements that define development practices are also driven by backward-looking financial models that make assumptions about the cost to comply with...
requirements and deliver product priced to be profitable to the developer but may not consider long-term management cost to the homeowner or society in the future. The successful candidate will conduct research to analyze big data sets and develop quantitative models/tools to measure and project land development impacts on water and other resources; will apply tools to evaluate impacts and resiliency of specific land use design and management proposals; will develop an extension program to inform public policies and will work with real proposed projects to evaluate strategic risks to financial models. It is also expected that the faculty will teach one undergraduate course per year focused on extension applications of this program.

This position is one of four in a cohort that will address issues related to environmentally resilient, resource efficient land use. These include expertise in: 1) This position; 2) Geographical information systems and remote sensing applied to the urban environment; 3) Urban water resource engineering; and 4) Urban soil and water quality. These four faculty members will have unique opportunities for developing interdisciplinary, collaborative projects and partnerships with faculty in CLCE and PREC as well as in the UF Informatics Institute (https://informatics.institute.ufl.edu), UF Water Institute, Florida Climate Institute, Center for Public Issues Education, and other interdisciplinary programs at the University of Florida. The purpose of this cohort is to assemble a core group of faculty who will develop proactive programs and scholarly approaches to support desirable changes in Florida communities. All four new faculty will work collaboratively to understand and affect the many facets of current and future issues related to sustaining Florida’s land, water, energy and other natural resources. All of these positions include Extension appointments that will actively engage the new faculty with county extension faculty, state and local government, nonprofits at every level, and business leaders as they conduct educational programs focused on solutions in Florida communities. Scholarly publications that test theories or determine variables that account for success would be expected.

Because of the IFAS land-grant mission, all faculty are expected to be supportive of and engaged in all three mission areas—Research, Teaching and Extension—regardless of the assignment split specified in the position description.

**Qualifications**

A doctorate (foreign equivalent acceptable) in Engineering; Statistics; Urban Regional Planning; Computer Science; Geography; Geomatics or other relevant discipline is required. Skills and experience directly related to some of the following areas is essential: resource analytics (big data-driven decision making), quantitative analysis and evaluation of community resources including water and energy, and land development impacts on these resources. The ability to work effectively in an interdisciplinary manner with faculty from departments and colleges outside the incumbent’s home academic unit is essential. Knowledge and experience with big data analytics (simultaneous application of statistics, computer programming and operations research to quantify and optimize performance), GIS and simulation modeling techniques are desirable. Postdoctoral and other professional experience is desirable. Candidates should have demonstrated skills in verbal and written communication, interpersonal relationships, and procurement of extramural funding. Candidates must be supportive of the mission of the Land-Grant system. Candidates must also have a commitment to IFAS core values of excellence, diversity, global involvement, and accountability.
Background Information:
The Agricultural and Biological Engineering Department is a unit in the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida and has diverse teaching, research and extension education programs. The Department is comprised of 29 faculty members located on the Gainesville campus, 5 faculty located across the state at research and education centers, 10 courtesy faculty and 20 support personnel (see website http://abe.ufl.edu), and consistently ranks in the top 5 Agricultural and Biological Engineering programs nationwide. Instilling excellence in research, leadership, innovation, and entrepreneurship are ABE's highest priorities. At ABE the candidate will join an dynamic, cross-disciplinary group of researchers, and will enjoy broad opportunities for collaborations with existing teams, including those studying biocomplexity engineering, biofilm systems and biosensors, biofuels, coupled natural and human ecosystems, nanotechnology and nanomaterials, climate variability and change, crop modeling, hydrology and water quality.

The University of Florida (http://www.ufl.edu) is a Land-Grant, Sea-Grant, and Space-Grant institution, encompassing virtually all academic and professional disciplines, with an enrollment of more than 50,000 students. UF is a member of The Association of American Universities. The Institute of Food and Agricultural Sciences (http://ifas.ufl.edu) includes the College of Agricultural and Life Sciences (http://cals.ufl.edu), the Florida Agricultural Experiment Station (http://research.ifas.ufl.edu), the Florida Cooperative Extension Service (http://extension.ifas.ufl.edu), the College of Veterinary Medicine (http://www.vetmed.ufl.edu), the Florida Sea Grant program (http://www.flseagrant.org/), and encompasses 16 on-campus academic departments and schools, 12 Research and Educational Centers (REC) located throughout the state, 6 Research sites/demonstration units administered by RECs or academic departments, and Florida Cooperative Extension Service offices in all 67 counties (counties operate and maintain). The School of Natural Resources and Environment is an interdisciplinary unit housed in IFAS and managed by several colleges on campus. IFAS employs over 2500 people, which includes approximately 900 faculty and 1200 support personnel located in Gainesville and throughout the state. IFAS, one of the nation’s largest agricultural and natural resources research and education organizations, is administered by a Senior Vice President and four deans: the Dean of the College of Agricultural and Life Sciences, the Dean for Extension and Director of the Florida Cooperative Extension Service, the Dean for Research and Director of the Florida Agricultural Experiment Station, and the Dean for the College of Veterinary Medicine. UF/IFAS also engages in cooperative work with Florida A&M University in Tallahassee.

Employment Conditions
This position is available January 1, 2016, and will be filled as soon thereafter as an acceptable applicant is available. Compensation is commensurate with the education, experience, and qualifications of the selected applicant.

Nominations
Nominations are welcome. Nominations need to include the complete name and address of the nominee. This information should be sent to:

Dr. Please refer to Requisition # 494861
Rafael Munoz-Carpena
Chair, Search and Screen Committee  
University of Florida  
Agricultural and Biological Engineering  
P.O. Box 110570  
Gainesville, FL 32611-0570  

Telephone: 352-392-1864  
Facsimile: 352-392-4092  
Electronic Mail: capena@ufl.edu  

**Application Information**

- Individuals wishing to apply should go online to [http://explore.jobs.ufl.edu/cw/en-us/job/494861](http://explore.jobs.ufl.edu/cw/en-us/job/494861) and submit:
  - Application  
  - Cover letter that states applicant’s interest in the position and qualifications relative to the credentials listed above  
  - Curriculum vitae  
  - Contact information (including email addresses) for three individuals willing to write letters of recommendation  

Final candidate will be required to provide official transcript to the hiring department upon hire. A transcript will not be considered “official” if a designation of “Issued to Student” is visible. Degrees earned from an education institution outside of the United States are required to be evaluated by a professional credentialing service provider approved by National Association of Credential Evaluation Services (NACES), which can be found at [http://www.naces.org/](http://www.naces.org/).  

*The University of Florida is an Equal Opportunity Institution dedicated to building a broadly diverse and inclusive faculty and staff. The selection process will be conducted in accord with the provisions of Florida’s ‘Government in the Sunshine’ and Public Records Laws. Persons with disabilities have the right to request and receive reasonable accommodation.*