

**POSITION ANNOUNCEMENT # 0001-4244  
REQUISITION # 498319**

**Title:** Assistant Professor – Precision Agricultural Engineer

**Location:** Southwest Florida Research and Education Center  
University of Florida  
Institute of Food and Agricultural Sciences (IFAS)  
Immokalee, Florida

**Salary:** Commensurate with Qualifications and Experience

**Review Date:** For full consideration, candidates should apply and submit additional materials by October 31, 2016. 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% extension (Florida Cooperative Extension Service) and 40% research (Florida Agricultural Experiment Station) available at the Southwest Florida Research and Education Center, Institute of Food and Agricultural Sciences, University of Florida. This assignment may change in accordance with the needs of the unit. Duties will include development and dissemination of horticultural technologies to sustain and improve Florida citrus production with emphasis on citrus greening disease therapies, evaluation of promising selections from the UF/IFAS citrus breeding program, and citrus nursery improvements. The faculty member must function successfully as a collaborative member of interdisciplinary Extension and Research teams. Tenure will accrue in the Agricultural and Biological Engineering Department (ABE). The faculty member will seek contract and grant funding actively to support his/her program. The faculty member will lead in Extension activities in his or her program area.

The faculty member in this position will develop successful and nationally recognized research and extension programs in precision agriculture with focus on citrus, fresh-market vegetables (e.g. tomato, pepper) other future crops, and natural systems. Desired research interests may include unmanned aerial vehicles (UAV) for agriculture and natural systems, smart sensor design computer vision, robotic automation, remote sensing, GIS, wireless sensor network, and big data application. Example research includes use of UAVs in identifying spatial patterns in crop and/or pests within a farm and precision application of agricultural inputs such as water, fertilizer, and pesticides. Extension component will include development of a successful educational program to bring on-the-ground changes through adoption and evaluation of state-of-the-art precision agriculture equipment and techniques with a goal of improving the profitability and environmental sustainability of Florida's fruit and vegetable industry.

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In addition to strong disciplinary training we seek candidates with interest in integrating knowledge from multiple academic domains, particularly in aerial systems and advanced sensor technologies for citrus and vegetable production. Background in mathematical modeling and spatial analyses of agricultural and natural systems is a plus. This position brings together new and existing faculty in cross-disciplinary research and extension efforts focused in precision agriculture. The incumbent will work in an interdisciplinary environment consisting of faculty in agricultural and biological engineering, agricultural and natural resources economics, entomology, horticulture, microbiology, plant pathology, soil science, and weed science. The incumbent is expected to provide leadership in precision agriculture extension and develop the program for the entire state engaging other faculty in the related research area.

Candidates should possess the interest, skills, and temperament to interact effectively with other researchers. A successful candidate is expected to embrace all three missions of Research, Extension, and Teaching of the Land-grant university system and will be expected to teach one course each year. The research and extension FTE assignment may vary in response to the needs of the department.

The candidate is required to establish the basis for a strong externally funded research program, and promote his/her research activity and leadership in professional societies, supported by sustained publication activity in top scientific journals. The candidate has the opportunity to collaborate with other faculty and research partners, creating synergy both inside and outside of the University of Florida. The goals of the position are also in line with strategic research areas of the UF College of Engineering (<http://www.eng.ufl.edu/research/research-areas/>) of which ABE is also an active member through ABET accreditation. The candidate will be expected to participate in all activities or departmental academic life such as research groups, mentorship of undergraduate and graduate students, and academic service activities; and work closely with other faculty in IFAS, the College of Engineering, and the Center for Remote Sensing.

### **Qualifications**

#### **Required:**

A doctorate in Engineering or a closely related discipline is required. Candidates should have demonstrated excellent verbal and written communication skills, and the ability to participate in collaborative efforts, and procurement of external 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.

#### **Preferred:**

We seek an interdisciplinary engineer with the ability to integrate the use of remote sensing technologies for precision agriculture applications. It is desired that the candidate have previous experience in areas of unmanned aerial vehicles (UAVs) in agriculture, sensors and its integration with robotics for fruit and vegetable crops. Postdoctoral experience is desirable.

### **Background Information:**

The Southwest Florida Research and Education Center (SWFREC) is located one mile north of Immokalee and approximately 35 miles southeast of Fort Myers, and is 40 miles from the Gulf of

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Mexico, which has internationally recognized tourism beach destinations (Sanibel, Captiva, and Marco islands). Presently, SWFREC supports thirteen faculty programs and a staff of more than 80 people. Active research programs in citrus horticulture, vegetable horticulture, irrigation and water resource management, soil fertility, pest management, plant pathology, agricultural and natural resource economics, soil microbiology, plant physiology, weed science, soil science, and agricultural economics occur on 320 acres of land at SWFREC. The faculty and staff of SWFREC serve a vibrant commercial agricultural region.

The Southwest Florida REC is situated at the intersection of agricultural, urban, environmental interests within the iconic landscapes of Everglades and Big Cypress National Preserve. Farm gate sales for the region average more than one billion dollars each year. The region has intensive production in citrus, beef cattle, fresh market vegetables, and sugarcane. The area has a unique blend of agriculture, a rapidly growing urban area, and protected ecosystems. Agriculture in the region faces environmental challenges including water supply and quality and competes with ever-increasing land values.

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 a diverse teaching, research and extension education programs. The Department is comprised of 29 faculty members located on the Gainesville campus, five faculty located across the state at research and education centers, ten courtesy faculty and 20 support personnel (see website <http://abe.ufl.edu>), and consistently ranks in the top five 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 a dynamic, cross-disciplinary group of researchers, and will enjoy broad opportunities for collaborations with existing teams, including those studying 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,

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and the Dean for the College of Veterinary Medicine. UF/IFAS also engages in cooperative work with Florida A&M University in Tallahassee.

**Applications:**

For full consideration, candidates should apply and submit additional materials by October 31, 2016. The position will remain open until a viable applicant pool is determined.

Individuals wishing to apply should go online to <http://explore.jobs.ufl.edu/cw/en-us/job/498319> and submit:

1. Application
2. Letter of application that states applicant's interest in the position, qualifications relative to the credentials listed above, previous professional responsibilities and how these relate to the position;
3. Complete vita (which includes current position and responsibilities); and
4. The name, address, telephone and facsimile numbers, and electronic mail address of five persons to serve as references.

**Contact Information and Nomination Submission**

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

Please refer to Requisition # 498319  
Sanjay Shukla, PhD  
Chair, Search and Screen Committee  
University of Florida  
Southwest Florida Research and Education Center  
2685 State Road 29 N  
Immokalee, FL 34142

Telephone: (239)658-3400, extension 3425  
Facsimile: (239)658-3403  
Electronic Mail: [sshukla@ufl.edu](mailto:sshukla@ufl.edu)

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/>.

*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.*

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