Agricultural & Biological Engineering
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**UF | IFAS**
UNIVERSITY *of* FLORIDA

**POSITION ANNOUNCEMENT # 00000689**
**REQUISITON # 70466**

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| **Title:** | **Assistant/Associate Professor in Artificial Intelligence (AI) for Agricultural Robotics and Smart Agriculture** |
| **Location:** | **Agricultural & Biological Engineering**<br>**University of Florida**<br>**Institute of Food and Agricultural Sciences (IFAS)**<br>**Gainesville, Florida** |
| **Salary:** | **Commensurate with Qualifications and Experience** |
| **Review Date:** | **For full consideration, candidates should apply and submit additional materials by April 3, 2021. The position will be open until a viable applicant pool is determined.** |

## Duties and Responsibilities

The Institute of Food and Agricultural Sciences is committed to creating an environment that affirms diversity across a variety of dimensions, including ability, class, ethnicity/race, gender identity and expression. We particularly welcome applicants who can contribute to such an environment through their scholarship, teaching, mentoring, and professional service. We strongly encourage historically underrepresented groups to apply.

If an accommodation due to a disability is needed to apply for this position, please call 352-392-2477 or the Florida Relay System at 800-955-8771 (TDD) or visit Accessibility at UF.

This is a 9-month, tenure track position (70% research and 30% teaching) in the Agricultural Biological Engineering Department (ABE), Institute of Food and Sciences (IFAS). The candidate in this position will work closely with others in IFAS, Herbert Wertheim College of Engineering (HWCOE), and other UF disciplines on Artificial Intelligence (AI) related to research and teaching activities.

The successful candidate is expected to build a research program in applications of AI in agriculture, with a focus on Agricultural Robotics and Smart Agriculture. There is an exponentially increasing potential for AI to impact the efficacy and economics of Smart Agriculture and Agricultural Robotics in autonomous applications, including but not limited to automated harvesting, automated planting and pruning, rapid phenotyping, precision

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management, yield mapping, soil and water management, remote sensing-based disease and pest scouting, livestock monitoring and prediction, and other aspects of production in plant and animal systems. These applications lie at the intersection of computational sciences and engineering (agricultural/mechanical/electrical) that are becoming increasingly more big data oriented. The candidate for this position is expected to collaborate with other ABE, IFAS and HWCOE faculty in multi-disciplinary research.

This position is part of a wider effort at the University of Florida which is building an AI program with both breadth and depth: The depth to produce top Ph.D.'s in AI technology and the breadth to infuse AI into UF's entire curriculum so that all students, graduate and undergraduate, regardless of their major, develop basic awareness and competence in how AI is transforming their future careers. To achieve this goal the University of Florida has committed to hiring 100 AI-focused faculty across the entire university. These faculty are being sought as members of interdisciplinary teams that span multiple colleges, where UF will leverage its existing expertise as well as new faculty to tackle some of society's most pressing challenges. These positions are made possible by the UF AI Initiative and a gift from NVIDIA that is establishing the most powerful supercomputer in U.S. Higher Education at the University of Florida.

The successful candidate is expected to build a nationally and internationally recognized research program supported by a strong graduate research group and extramural funding from state and federal agencies. The candidate is expected to develop and promote his/her research activity and leadership in professional societies, supported by a sustained publication activity in top scientific journals. The candidate will have the opportunity to collaborate with other faculty and research partners, creating synergy both inside and outside of the University of Florida AI academic community. The candidate will also be expected to participate in all activities of 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 Herbert Wertheim College of Engineering, UF Research Computing, UF Institutes (Informatics, Water, Florida Climate, Sustainable Food Systems) and the new UF - NVIDIA flagship collaboration in AI.

The teaching portion of this position will include development of a successful undergraduate and graduate education program which will introduce students to cutting-edge AI-based technology and techniques in the context of robotics and smart technological applications in agricultural and biological engineering. The 30% FTE commitment will typically be fulfilled by teaching one undergraduate and one graduate course per year as assigned by the department chair. Potential topics in the ABE curriculum might be an undergraduate-level course in *Instrumentation for Ag IoT Technologies*, or a combined undergraduate and graduate-level course in *AI applications in AG IoT*, while other topics based upon candidate's expertise and interests are welcome*.*

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. Candidates must also have a commitment to IFAS core values of excellence, diversity, global involvement, accountability and a deep commitment to ethical dignity. The position is expected to provide appropriate levels of service to the department, college, university and/or discipline. Specific expectations are described in department, college and university policy statements regarding evaluation and promotion.

**Qualifications**

Required:

A doctorate in Engineering (Ag and Bio, Electrical, Mechanical or Industrial), Computer Science and Engineering, or a closely related discipline is required with an emphasis in AI-driven autonomous robotic solutions.  Candidates should have demonstrated excellent verbal and written communication skills, the ability to participate in collaborative research, and the ability to procure extramural funding. Candidate must have published track record in internationally recognized refereed journals in relevant applications using software and hardware systems in robotics, automation, and/or smart technologies.  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 a strong background in autonomous robotics and AI who can work in agricultural and biological engineering applications in mobile robotics, articulated robotics, and/or smart agriculture tasks. As a result, the candidate should have strong experience integrating robotic/precision hardware and software, while using AI-methods to solve challenging problems found in agriculture, food and bio-processing, packaging, and/or natural resources. Demonstrated potential in teaching undergraduate or graduate level courses in AI-based robotics, instrumentation, IoT or precision technologies is preferred. Postdoctoral and/or prior professorial experience is desirable.

**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 that has diverse teaching, research and extension education programs. The Department is comprised of over 30 faculty members located on the Gainesville campus, 5 faculty located across the state at research and education centers, and 20 support personnel (see website http://abe.ufl.edu), and its programs consistently rank in the top 10 Agricultural and Biological Engineering programs nationwide. Instilling excellence in research, leadership, innovation, and entrepreneurship are ABE's highest priorities. At the University of Florida, the candidate will join a dynamic, cross-disciplinary group of researchers, and will enjoy broad opportunities for collaborations with existing teams.

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 56,000 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.  UF/IFAS employs nearly 4,500 people, which includes approximately 990 salaried faculty and 1,400 permanent 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 starting in *Fall 2021*, 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:

Please refer to Requisition # 70466
Tom Burks, PhD
Chair, Search and Screen Committee
University of Florida
Agricultural and Biological Engineering Department
1741 Museum Road
Gainesville, FL 32611

Telephone:                     (352)294-6728
Electronic Mail:               tburks@ufl.edu

## Application Information
Individuals wishing to apply should go online to apply.interfolio.com and submit:
- o   Cover letter that states applicant's interest in the position and qualifications relative to the credentials listed above
- o   Curriculum vitae
- o   Research and Teaching Statement (3-page limit)
- o   Contact information (including email addresses) for three individuals willing to either write a letter of recommendation (preferred), or participate in phone interview regarding candidate.

Selected candidate will be required to provide an 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).

Hiring is contingent upon eligibility to work in the US. The University of Florida is a public institution and subject to all requirements under Florida Sunshine and Public Record laws.

The University of Florida is an Equal Opportunity Institution dedicated to building a broadly diverse and inclusive faculty and staff. The University and greater Gainesville community enjoy a diversity of cultural events, restaurants, year-round outdoor recreational activities, and social opportunities.