



Agricultural & Biological
Engineering
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**POSITION ANNOUNCEMENT # 00014402
REQUISITION # 521235**

Title: Assistant Professor in Modeling Cropping Systems

Location: Agricultural & Biological Engineering
University of Florida
Institute of Food and Agricultural Sciences (IFAS)
Gainesville, Florida

Salary: Commensurate with Qualifications and Experience

Review Date: For full consideration, candidates should apply and submit additional materials by August 1, 2022. The position will remain open until a viable applicant pool is determined.

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](#).

Duties and Responsibilities

This is a faculty position that will provide leadership in the development and application of the next generation of cropping system computer models. This is a 9-month, tenure track position (60% research 40% teaching) in the Agricultural and Biological Engineering Department (ABE), Institute of Food and Sciences (IFAS). This position will work closely interfacing ABE with others in IFAS, Herbert Wertheim College of Engineering (HWCOE), and UF computer modeling/simulation and Artificial Intelligence (AI).

The ABE department at UF is one of the global leaders in the development and application of cropping system models. Both at UF and internationally the interest is growing regarding the necessity to produce and manage food systems with greater resilience and circularity to ensure resources for future

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generations. This position will contribute to this research and educational need locally, nationally, and globally. The successful candidate is expected to establish an applied research program that develops and advances current cropping system models for integration in a range of applications including but not limited to genetics, climate change and variability, food systems, value chains, ecosystem services, life cycle analyses and circular systems. The successful candidate will collaborate with others focused on these topics with emphasis on using a systems approach that integrates expertise among multiple disciplines and specialties within IFAS and UF and the broader international crop modeling community.

The teaching portion of this position will include development of a successful undergraduate and graduate education program that will introduce students to cutting-edge theories and applications in computer modeling and engineering of food and circular systems, and related analytical techniques toward measuring and assessing agricultural and environmental impacts and their co-dependency. The 40% FTE commitment will typically be fulfilled by teaching one undergraduate and one graduate course per year as assigned by the department chair; co-teaching courses (or perhaps sections of courses) related to sustainability, food systems, and cross-cutting topics; and serving as main advisor of graduate students maintained by the candidate's research program. The candidate will also be expected to contribute to the Biological Systems Certificate that is offered in ABE.

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 through leadership in professional societies, supported by a sustained publication activity in top scientific journals. The candidate will collaborate with other faculty and research partners, creating synergy both inside and outside of the University of Florida academic community. The candidate will participate in all activities of departmental academic life such as research groups, mentorship of undergraduate and graduate students, academic service and committee activities; and the candidate will work closely with other faculty in IFAS, the Herbert Wertheim College of Engineering, UF Research Computing, UF Institutes (Informatics, Water, Florida Climate, Food Systems) and the new UF - NVIDIA flagship collaboration in AI.

The ABE department contributes to several department, college, and university efforts related to computer modeling, sensors, control systems, and AI through coursework, certificates, and interdisciplinary M.S. degrees. The successful candidate will participate, integrate, and provide leadership in these efforts to increase topic diversity with context-specific applications for biological systems, ensure that the curriculum is relevant and innovative, and expand curriculum options for undergraduate students.

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. 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**

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Ph.D. (doctorate) or foreign equivalent is acceptable in agricultural and biological engineering, electrical engineering, chemical engineering, or a closely related field.

Understanding and career interest related to computer modeling, with experience with cropping systems modeling and broader agricultural and biological systems engineering applications.

Candidates are expected to possess strong ability in verbal and written communication skills.

Candidates are expected to have demonstrated experience through research and refereed publication track-record in the area of the development and application of cropping system models.

Candidates are expected to possess strong programming skills for the development and advancement of dynamic computer models.

Candidates are expected to show potential and interest in teaching undergraduate and graduate courses in the Agricultural and Biological Engineering department.

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, accountability and a deep commitment to ethical dignity.

Preferred

Candidates with engineering degrees are preferred.

Demonstrated experience with grants and funding, interdisciplinary collaborations, and leading research projects.

Previous teaching experience related to crop systems modeling, AI and programming and analysis at the undergraduate and/or graduate level.

Postdoctoral and other professional experience, including academic, government R&D, and industry experience, are positive attributes.

Evidence of effectively working in trans-disciplinary groups or consortia between academia and outside stakeholders.

Involvement in professional societies or other entities related to the discipline.

Mentorship experience with undergraduate or graduate students.

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 35 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 consistently ranks in the top 10 Agricultural and

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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 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 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 **Fall 2022** 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 # 521235
Dr. Gerrit Hoogenboom
Chair, Search and Screen Committee
University of Florida
Agricultural & Biological Engineering
P.O. Box 110570
Gainesville, FL 32611

Telephone: 352-294-1036
Electronic Mail: gerrit@ufl.edu

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Application Information

- The Search and Screening Committee will begin screening applications on **August 1, 2022**.
- Individuals wishing to apply should go online to <http://explore.jobs.ufl.edu/cw/en-us/job/521235> and submit:
 - Cover letter that highlights applicant's interest in the position and qualifications relative to the credentials listed above
 - Research statement (up to 2 pages)
 - Teaching and mentoring statement (up to 2 pages)
 - Diversity statement (up to 1 page)
 - Curriculum vitae
 - Contact information (including email addresses) for 4 individuals willing to provide a verbal (phone) reference and write letters of recommendation.
 - Unofficial transcripts

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.

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