



**IFAS Southwest Florida Research and Education Center**

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**Ph.D. Assistantship: Artificial Intelligence in Soil Science**

The Soil Science Artificial Intelligence Research Group at the University of Florida's Southwest Florida Research and Education Center is currently seeking a Ph.D. graduate assistant to examine Artificial Intelligence (AI) techniques and novel sensing systems towards the development of a sensor fusion based soil health assessment toolbox.

**Position description**

The successful candidate is expected to contribute to the collection and analysis of diverse in situ (drones, handheld devices) and spaceborne datasets (e.g., hyperspectral), the development of cutting-edge AI algorithms (e.g., deep learning, edge computing) and processing techniques to fully exploit raw data and forge a path for a diverse spectrum of applications in soil science, such as real-time measurements, mapping and informed decision making. The work will be implemented in collaboration with international knowledge institutes. Moreover, the candidate is expected to disseminate the research findings at relevant scientific conferences and symposiums, as well as to peer-reviewed journal articles.

**Required Qualifications**

- Relevant Master's degree (e.g., computer science, agricultural engineering, agricultural sciences, or closely related fields);
- Good programming skills (e.g., R and/or Python);
- Excellent problem solving skills and a passion for environmental research;
- Ability to adapt to new technologies and learn new tools;
- Good English verbal and written skills are required, (non-native English speakers please check for TOEFL/IELTS [requirements](#)).

**Preferred Qualifications**

- Experience in cloud computing and analysing large data sources

**Application process information**

Interested candidates are required to contact Dr. Nikos Tziolas at [ntziolas@ufl.edu](mailto:ntziolas@ufl.edu) and provide a cover letter with their research interests and experiences (1 page), curriculum vitae as well as contact information (no letters required) for three references (email title "Inquiry about PhD Soil AI"). The review of applications starts immediately and will continue until the position is filled. The shortlisted candidates will be interviewed. The selected candidate is required to submit a formal application to the Department of Soil, Water, and Ecosystem Sciences graduate program <https://soils.ifas.ufl.edu/academics/graduate-studies/apply/>.

## **Background information**

The University of Florida 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 includes the College of Agricultural and Life Sciences, the Florida Agricultural Experiment Station, the Florida Cooperative Extension Service, the College of Veterinary Medicine, the Florida Sea Grant program, 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.

The Southwest Florida Research and Education Center in Immokalee, near Naples and Fort Myers, two beautiful cities on the gulf coast of Florida, USA. The researcher center is dedicated to interdisciplinary fundamental research in the field of agricultural sciences with a recent focus on AI to build a tech-driven agricultural domain. <https://swfrec.ifas.ufl.edu>