School of Integrative Plant Science Faculty Position Opening:
Geospatial Land Processes

POSITION: The School of Integrative Plant Science at Cornell University is seeking applicants for a 9-month tenure-track position in Geospatial Land Processes with an expected primary affiliation in the Section of Soil and Crop Sciences and with research and teaching responsibilities at the level of Assistant/Associate Professor. The successful candidate is expected to develop a research program involving laboratory- and field-based investigations, and by using geospatial methods and advanced computational capabilities, integrate soil and agroecosystem properties with environmental covariates to analyze and create a more complete understanding of the complex interactions and processes at variable spatial scales. Processes of potential focus include soil and plant exchange of gases, water, and energy which are critical to plant productivity for food and nutrition security, carbon sequestration and greenhouse gas production and sustainable land management. The incumbent is expected to maintain an extramurally funded research program and develop collaborative research and teaching efforts with the Cornell geospatial science and technology community in several academic departments and colleges. The successful candidate will teach an advanced undergraduate course in geographic information science and technology (GIS&T) and an undergraduate/graduate course in spatial modeling and analysis.

RESPONSIBILITIES: This position has 50% research and 50% teaching responsibilities with focus on advancing our understanding of biophysical land processes that affect soil and plant dynamics and interactions relevant to agriculture and other managed ecosystems though the development and application of geospatial science and technology (GIS&T). Processes of potential focus include soil and plant exchange of gases, water, and energy which are critical to plant productivity for food and nutrition security, carbon sequestration and greenhouse gas production and sustainable land management.

The successful candidate is expected to develop a research program involving laboratory- and field-based investigations in an area of the candidate’s geospatial strengths and background. By using geospatial methods and advanced computational capabilities, soil and agroecosystem properties will be integrated with environmental covariates to analyze and create a more complete understanding of the complex interactions and processes at variable spatial scales. The research program will be highly relevant to efforts aimed at adaptation to and mitigation of global environmental change, including the advancement of quantitative and computational methods for characterizing soil-plant dynamics and processes, and precision agriculture. This position will focus primarily on agricultural and environmental systems but may also include collaborative efforts with geospatially-relevant fields of study at Cornell University.
incumbent is expected to teach an undergraduate course in geographic information science and technology (GIS&T) and an advanced undergraduate/graduate course in spatial modeling and analysis. The teaching program should include environmental process modeling, proximal and remote sensing from coarse to fine spatial scales using contemporary instrumentation, and advanced mathematical and statistical methods for assessing these processes in agricultural and associated managed ecosystems. The incumbent is also expected to be involved in undergraduate advising, primarily in the agricultural sciences, environmental science and sustainability, and plant sciences majors and graduate student training in the soil and crop sciences, and related graduate fields in the Graduate School at Cornell University.

**QUALIFICATIONS:** Ph.D. in Soil Science, Environmental Science, Environmental Engineering, Agronomy, Physical Geography, or related disciplines. The candidate must be able to work in a multi-disciplinary and multi-cultural setting. Well-qualified applicants are expected to have a distinguished record of academic accomplishments in geospatial science and technology, including demonstrated skills in teaching, quantitative research methods, and demonstrated success in program support through external funds.

**ANTICIPATED START DATE:** August 2016.

**ACADEMIC RANK AND SALARY:** Assistant/Associate Professor (tenure track) with salary competitive with peer institutions and commensurate with background and experience.

**APPLICATIONS:** Candidates are requested to submit a curriculum vitae, a research plan (2-3 pages), teaching interests (1 page), university transcripts, and copies of up to three publications. In addition, applicants must arrange for three letters of recommendation to be submitted concurrently with the other application materials. Submit all application materials to Academic Jobs Online at [https://academicjobsonline.org/ajo/jobs/5929](https://academicjobsonline.org/ajo/jobs/5929).

Questions about the application process can be addressed to Ms. Amy Lanfair, Section of Soil and Crop Sciences ([acl10@cornell.edu](mailto:acl10@cornell.edu)). Questions about the position can be addressed to Search Committee Chair, Professor Harold van Es ([hmv1@cornell.edu](mailto:hmv1@cornell.edu)).

**ABOUT CORNELL:** The new faculty member will join a collaborative, interdisciplinary community on the main campus of Cornell University, in Ithaca, New York. The Section of Soil and Crop Sciences is part of Cornell’s School of Integrative Plant Science (SIPS), a large internationally renowned group of academics with many interactions and joint projects. Members of the Section also collaborate with colleagues working in areas of environmental sciences, biogeochemistry, and international agriculture. For more information about SIPS and the Section of Soil and Crop Sciences, visit [http://sips.cals.cornell.edu/](http://sips.cals.cornell.edu/) or [http://scs.cals.cornell.edu/](http://scs.cals.cornell.edu/)

Cornell comprises a varied array of academic units from music and literature to astrophysics and veterinary medicine and is a member of the Ivy League. The main campus of Cornell University, which overlooks 40-mile-long Cayuga Lake, is located in the Finger Lakes region of Upstate New York, a scenic environment of spectacular lakes, waterfalls, gorges, rolling hills, farmland, vineyards, and state parks. It is an area with outstanding recreational and summer and
winter sports opportunities for individuals and families. The Cornell campus itself is one of the most beautiful in the country. The Ithaca community is culturally diverse with excellent theater, music, sports, and other activities befitting a major university town, yet also has the warmth and friendliness of a small community. The area is known for its many bookstores and restaurants, an extensive walking trail system, arboretum, Laboratory of Ornithology, marina, Farmers Market, a hands-on Science Center, and art and science museums. For more information and links to individual attractions, visit http://www.visitithaca.com/.

Cornell University is an innovative Ivy League university and a great place to work. Our inclusive community of scholars, students and staff impart an uncommon sense of larger purpose and contribute creative ideas to further the university's mission of teaching, discovery and engagement.