Assistant/Associate Professor - Biocomplexity Engineering

University of Florida

This is a 12-month, tenure track position (60% research, 40% teaching) in the Agricultural and Biological Engineering Department (ABE), Institute of Food and Agricultural Sciences (IFAS), University of Florida (Gainesville, FL).

The person in this position will conduct engineering research (data analysis, dynamic systems modeling, and theoretical development) on complex biological systems and their interactions with natural and human systems across spatiotemporal scales. Applications include human interactions with ecohydrological and agroecological systems across all scales, from cells to regional and global scales, using new and emerging complex systems science theories. A goal of this position is to enhance and expand transdisciplinary research in ABE and IFAS. The successful candidate is expected to focus on understanding the complex patterns and processes of biological systems with the aim to develop engineering solutions to current environmental and management problems.

In addition to strong disciplinary training we seek candidates with interest in integrating knowledge from multiple academic domains. This position brings together new and existing faculty in cross-disciplinary research and teaching efforts focused on coupled biophysical and human systems as a complex global challenge. Candidates should possess the interest, skills, and temperament to interact effectively with other researchers. A successful candidate is also expected to teach undergraduate and graduate courses addressing complex systems analysis and engineering solutions, as well as mentor and supervise highly motivated graduate and undergraduate students.

The candidate is required to establish the basis for a strong externally funded research program, and develop active collaborations with other faculty and research partners, creating synergy both inside and outside of the University of Florida. Moreover, we expect the candidate to promote his/her research activity and leadership in professional societies, supported by sustained publication activity in top scientific journals. 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 of the department academic life (research groups, mentorship of undergraduate and graduate students, and academic service activities) and work closely with other faculty in IFAS, the College of Engineering, the Health Science Center (Emerging Pathogens Institute, and McKnight Brain Institute), UF Water Institute and Florida Climate Institute.

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 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 29 faculty members located on the Gainesville campus, 5 faculty located across the state at research and education centers, 10 courtesy faculty and 20 support personnel (see website http://abe.ufl.edu), and consistently ranks in the top 5 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 an 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.

A Ph.D. (foreign equivalent acceptable) in Engineering or a closely related field is required. We seek an interdisciplinary engineer or scientist with a passion for understanding the functioning of coupled biological and human systems. The applicant should have a strong background in analysis and modeling of complex systems. Candidates should have demonstrated excellent verbal and written communication skills, and ability to participate in collaborative efforts. Candidates must also have a commitment to IFAS core values of excellence, diversity, global involvement, and accountability.

For more information and to apply: https://jobs.ufl.edu/postings/52806

Postdoctoral fellowship (OT-Med, Aix-Marseille University, France) :
Adaptation to Environmental Change : A Social Learning Process

We are looking for a candidate for a post doctoral fellowship who will be part of a project (AMENOPHYS) devoted to analysing the adaptation of societies and economies to their changing environment particularly with reference to the Mediterranean and North African areas. The candidate would be expected to collaborate in the development of models to explain how societies arrive at their collective “decisions” to change their activities, particularly those which are directly related to the environment such as agriculture. An approach that interests the researchers in our group is that of agent-based computational modelling (ABM). Ideally, we would like someone who also has some background in archaeology and who is familiar with the treatment of archaeological evidence. The type of approach which is of particular interest of us is that employed by Axtell and his co-authors in analysing the population growth and subsequent collapse of the Kenta Anastasia in the Long House Valley in the West of the U.S.A. Among the specific questions we wish to analyse are:

(i) The way in which change emerges both in terms of the nature of the activities and their location. In particular how are the collective decision reached to achieve these changes? How does a society comes to the collective decision that it is no longer possible to remain in a particular location ?

(ii) Is there a relationship between the hierarchical organization of societies and their capacity to adapt ?

(iii) What can we learn from the archaeological evidence showing that drought generated by climate change may explain both the decline of palace economies shifting to isolated villages and the emergence of state level societies from nomadic populations ?

(iv) To what extent can trade with other regions offset the losses suffered in the production of certain crops as a result of climatic change ?

The project will be undertaken in collaboration with the scientists who make up the OT-Med group and some of the external collaborators in the AMENOPHYS project such as David Kaniewski from Toulouse and archaeologists from the Maison Méditerranéenne des Sciences de l’Homme in Aixen-Provence.

This will be essentially an interdisciplinary project, since economists and researchers from other disciplines, climatologists, paleo-ecologists and archeologists will be involved. On the empirical side there will be cooperation with the economics laboratory at the Scuola Superiore Sant Anna in Pisa who have specialists working on social adaptation to major changes in the environment and in particular with Giorgio Fagiolo and with the Catastrophic Risk group at Columbia where Graciela Chichilnisky one of the architects of the Kyoto agreements has accepted to collaborate.
CV and motivation letter have to be sent to alan.kirman@univ-amu.fr, as well as additional information request before the 31st August 2014.

For the post-docs, the fellowship is attributed for one year, starting 1st November or later. An extension of 6 or 12 months will be possible if the first year results are positively evaluated, the minimum requirements being results of high level in agreement with the scientific themes of OTMed and ready for publication. The extension decision will be done on the basis of an interview conducted by the management board of OT-Med.

University of Massachusetts Amherst - Lecturer, Department of Geosciences

https://www.interviewexchange.com/jobofferdetails.jsp?JOBID=51156

Job Description: The Department of Geosciences at the University of Massachusetts Amherst invites applications for a one year lecturer to teach two large lecture-based introductory courses each semester: an introductory course in human geography and world regional geography. The position begins on September 1, 2014 and ends on August 31, 2015. The introductory human geography course is taught for up to 200 students in a large lecture format (MWF) with discussion sections taught by graduate student teaching assistants. World Regional Geography is taught for up to 200 students in a large lecture format (Tu-Th) without discussion sections (with some T.A. grading support). World Regional Geography is a new course at UMass this fall. We hope to hire a dynamic and motivated geographer who can launch this course with skill and enthusiasm. We also invite the successful applicant to join in the academic and social life of the geography program through participation in program and department activities and events.

Requirements:
Required:
MA/MS in Geography
Previous, well-regarded teaching experience
Ability to manage a large course with graduate student assistants
Strong oral, written, and interpersonal communication skills

Preferred:
PhD or ABD in Geography
Experience teaching large lecture courses
Significant international research/travel experience

Additional Information:

The geography program at UMass Amherst is part of the Department of Geosciences (College of Natural Sciences). The geography program contributes to campus-wide initiatives aimed at cross-disciplinary, innovative approaches to education at all levels. We offer B.A., B.A. with concentration in Environmental Geography, B.S. and M.S. degrees in Geography, and offer PhDs in Geosciences. See the geography program website, http://blogs.umass.edu/umgeog, for more geography-specific information.

About University of Massachusetts Amherst: UMass Amherst, the flagship campus of the University of Massachusetts system, is situated in the famous college town of Amherst in the scenic Pioneer of western Massachusetts, 8 miles from Northampton, 90 miles from Boston and 175 miles from New York City. The area is home to the Five Colleges (Amherst College, Hampshire College, Mount Holyoke College, Smith College, and the University of Massachusetts), with many opportunities for inter-institutional collaboration. UMass Amherst is ranked among the top 10 research universities nationwide for our commitment to leadership in sustainability, and is one of 16 U.S. universities to receive a gold from the Association for the Advancement of Sustainability in Higher Education’s Sustainability Tracking Assessment Rating System (STARS).

Application Instructions: Interested candidates should apply online through Interview Exchange (https://www.interviewexchange.com/jobofferdetails.jsp?JOBID=51156) and include a letter of application, curriculum
vita, unofficial transcripts. The letter of application should specifically address general qualifications, research experience, teaching philosophy, and teaching experience. Please email three letters of reference to search@geo.umass.edu.

Review of applications will begin on July 29th. We hope to complete the hiring process by mid August and ask that applicants consider referees’ summer schedules when requesting references as there is likely to be a short turn-around time for reference letters.

The University of Massachusetts Amherst is an Affirmative Action/Equal Opportunity Employer of women, minorities, protected veterans, and individuals with disabilities and encourages applications from these and other protected group members.