**Multiple PhD Research Assistantships**

The Center for Complex Hydrosystems Research (CCHR) and the Department of Civil and Environmental Engineering and Department of Geography at the University of Alabama are seeking outstanding candidates for multiple Ph.D. research assistantships starting in Spring 2020 for a recently funded NSF-INFEWS project. A group of faculties and students will investigate the Food-Energy-Water Nexus and the impacts of transitioning from rain-fed to irrigation-fed (RFtoIF) agriculture in Alabama. As agriculture plays a significant role in the economies of the southern states, one potential option for their economic resurgence is through a drastic increase in agricultural productivity.

**About the position**

Three positions are sought in the Department of Civil, Construction and Environmental Engineering and another in the Department of Geography. Suitable candidates interested in the engineering positions will use variety of in situ and remotely sensed data, work on land surface (hydrologic) modeling and calibration, crop modeling, irrigation scheduling, drought monitoring and prediction and flood modeling in connection with water supply, hydroelectric and thermoelectric power plants. Inquiries about the positions can be sent to Dr. Hamid Moradkhani ([hmoradkhani@ua.edu](mailto:hmoradkhani@ua.edu)), or interested applicants can submit their applications to <http://cce.eng.ua.edu/graduate/doctor-of-philosophy/> including NSF-INFEWS in their statement of purpose. Candidates interested in the position in geography position will primarily be responsible for: land-use change modeling, agent-based modeling of farmer crop choice and irrigation decision-making, and/or the development, testing, and implementation of farmer interview questions and a cognitive mapping exercise. Inquiries can be sent to Dr. Nicholas Magliocca ([nrmagliocca@ua.edu](mailto:nrmagliocca@ua.edu)) and application instructions can be found at <https://geography.ua.edu/graduate-program/graduate-admission/> including NSF-INFEWS in their statement of purpose.

The positions carry a full tuition waiver, a stipend, and health insurance. Additional funding for conference presentations will be available. **Expected start date will be January 2nd, 2020**, or as otherwise agreed.

**Qualifications**

Qualified students will have strong quantitative and analytical skills, expertise in some or all of the following: hydrologic modeling, inverse modeling, statistical modeling, GIS and spatial analysis, agent-based modeling, network analysis, or similar computational approaches. Previous experience and proficiency with programming with Matlab, Python, R and NetLogo is desirable.