

Subject: MS-PhD Positions in Environmental Remote Sensing and Modeling

Applications are invited for graduate assistantships in environmental remote sensing and ecosystem modeling at MS or PhD levels (priority given to applicants for MS), beginning Fall 2016, with Dr. Kaiguang Zhao in the School of Environment and Natural Resources (SENR), the Ohio State University.

Dr. Zhao's lab focuses on mapping, monitoring, modeling, and managing terrestrial environments across scales via a combined observation and modeling toolsets. Self-motivated individuals are sought, especially those with good quantitative and computational skills who would like to apply such skills to address environmental issues related to natural or human-dominated ecosystems.

Although successful applicants have the flexibilities to develop his/her own research topics in the general areas of ecosystem remote sensing and modeling, the priority will be given to those interested in working on a recently funded two-year project on agriculture sensitivity to climate. The goal of this project is to refine our understanding of crop response to climate variability and change. This will be achieved by expanding existing and building new modelling capabilities to examine how climate and crop interact. The focus will be on both statistical and mechanistic crop models, involving (1) the development of a generic Bayesian model framework to explore historical agriculture survey and climate data for major US crop types, and (2) the fusion of remote sensing observations to constrain the EPIC agro-ecosystem model. These new developments will help to quantify model uncertainty and improve accuracies in projecting crop production in future climate scenarios, offering analytical tools to assist with climate-smart agriculture and create new insights into agro-ecosystem-climate interactions. Through the project, there exist numerous chances to collaborate with physical scientists from PNNL.

Qualified backgrounds include geography, ecology, forestry, environmental sciences, meteorology, hydrology, agriculture sciences or related fields. Degrees in statistics, physics, and computer sciences are also acceptable, if with demonstrated good understandings of biophysical ecology and environmental sciences. Skills and experiences in math, programming (e.g., Fortran, C, & Matlab), and remote sensing are highly desirable. The successful applicants must also have a strong work ethic.

Financial support will be a combination of research and teaching assistantships for both MS and PhD applicants. Applicants should contact Dr. Kaiguang Zhao ASAP (zhao.1423@osu.edu) using "Graduate Assistantship" as the email subject. Our regular deadline, April 1, is approaching soon, but interested applicants are still encouraged to inquire after the deadline. To apply, please include brief statements of your qualifications, a CV, GRE a/o TOFEL scores, and unofficial transcripts if readily available. Review of applicants will begin immediately. See here for more information about our graduate programs and admission requirements – SENR: <http://senr.osu.edu/graduate/prospective-graduate-students>, and ESGP: <https://esgp.osu.edu/prospective>