Graduate Research Assistant Position Announcement

Position: MS. or Ph.D.
Research area: Air Quality Engineering
Department: Biological & Agricultural Engineering
University: North Carolina State University

Job Description:
This position will conduct original research for a NSF funded project entitled “Fate, Transport and Transformation of Ammonia Emissions from Animal Feeding Operations and Their Impacts on Air-Soil Health”. The overall goal of this project is to advance our understanding of ecological and environmental impacts of atmospheric N on air-soil health by (1) establishing a science-based understanding of fate, transport, and transformation of NH$_3$ emitted from animal feeding operations (AFOs); (2) transferring the new knowledge to students, industry, regulators, and the public through various educational and outreach programs. The project will accomplish the following specific objectives:

1. Quantifying NH$_3$ and particulate NH$_4^+$ dry deposition as impacted by NH$_3$ emissions, land usage and meteorological conditions in AFO environments;

2. Estimating transformation of emitted NH$_3$ to secondary iPM$_{2.5}$ as impacted by NH$_3$ emissions, distance from source, atmospheric chemical & meteorological conditions;

3. Quantifying the impacts of NH$_3$ and NH$_4^+$ depositions on soil chemical and biological properties, including microbial biomass, stoichiometry of nitrogen transformations, pH.

In addition to working on this NSF project, this position will also have opportunities to be involved in undergraduate student mentoring, and project management.

For further information, please contact
Lingjuan Wang Li, Ph.D.
Professor
Dept., of Biological & Agricultural Engineering
North Carolina State University
Raleigh, NC27695-7625
Office: 919-515-6762
Email: lwang5@ncsu.edu