Ph.D. Assistantship in
Measuring and Modeling Soil Carbon and Greenhouse Gas Dynamics
at Emory University

We are recruiting Ph.D. students to focus on measuring and modeling (both process-based and machine learning models) soil organic carbon and greenhouse gas dynamics in agricultural and other land-cover classes (forests, wetlands, and coastal systems). A bachelor degree in environmental science, soil science, earth science, agronomy, plant science, ecology, microbiology, geology, or related discipline will be needed. Students with an interest in curiosity-driven research in a collaborative environment are welcome to apply. Students with experience with quantitative analyses, programing language (e.g., R or Python), process-based modeling, machine learning techniques will be given priority. Incoming students will be advised directly by Debjani Sihi (Emory University). Students from underrepresented and underserved groups are encouraged to apply.

The soil carbon project is based on a collaborative project funded by NSF Macrosystem Biology and NEON-Enabled science Program (Title: Upscaling soil organic carbon measurements at the continental scale: Evaluating emergent ecosystem properties using multivariate quantitative methods). The student will also collaborate with Jitendra Kumar (Oak Ridge National Laboratory) and Samantha Weintraub (National Ecological Observatory Network).

The greenhouse gas dynamics project is based on a DOE Environmental System Science Program (Title: Using probability distribution function as a scaling approach to incorporate soil heterogeneity into biogeochemical models for greenhouse gas predictions). The student will also collaborate with Jianqiu Zheng (Pacific Northwest National Laboratory), Eric Davidson (University of Maryland Center for Environmental Science), Patrick Megonigal (Smithsonian Environmental Research Center) and Michael Weintraub (University of Toledo).

Successful candidates will be located on the main campus in Atlanta, GA, and are expected to begin in Fall 2022. An annual stipend of ~$32,569 is available for the 2021-2022 academic year, with a potential of $500 increment each year.

You can reach out to the PI for more information. If need, we can set up a phone call (or zoom). If interested, contact Debjani Sihi (Email: debjani.sihi@emory.edu, Cell: 352-222-5655, Office: 404-727-4252) with a CV, cover letter, and contact information for three references by November 19, 2021. The deadline for application in the online portal is December 1, 2021. Link to the online portal will be shared with interested candidates.