

## **CIVIL AND ENVIRONMENTAL ENGINEERING DEPARTMENT SEMINAR & CASE ADVANCEMENT FELLOWS**



### **DR. MINLIANG YANG**

Assistant Professor

Department of Food, Bioprocessing, and  
Nutrition Sciences

NC State University

**Date:** Tuesday, April 29, 2025

**Time:** 12:30pm – 1:30pm EST

**Location:** In person in the Vose, Room 138

**Zoom link:** [here](#)

### ***Sustainability Assessment of Agri-food Systems***

**Abstract:** Food systems are accountable for approximately one-third of total anthropogenic greenhouse gas (GHG) emissions globally. Various factors contribute to the substantial GHG emissions in food systems, including agricultural production, energy-intensive activities in food processing, and food loss and waste generated along the supply chain. Meanwhile, food systems are challenged to supply sufficient and affordable food for the growing population within environmental limits. Even with rapid development in food technology, approximately 700-800 million people in the world were undernourished in 2021 and the percentage of the undernourished population has been growing since 2019. Thus, it's urgent to explore strategies to provide sufficient food without compromising the global ecosystem. In this talk, Yang will discuss their recent work on enhancing environmental and economic sustainability within agri-food systems.

**Bio:** Dr. Minliang Yang is an Assistant Professor in the Department of Food, Bioprocessing, and Nutrition Sciences, and an affiliate faculty member of the Bezos Center for Sustainable Proteins at NC State University. Yang's research focuses on applying technoeconomic analysis (TEA) and life-cycle assessment (LCA) in food and biosystems to explore strategies to mitigate life-cycle environmental impacts and improve the sustainability of the food supply chain. She's particularly interested in emerging technologies and novel foods, such as alternative proteins. Before joining NCSU, Yang received her postdoc training at Lawrence Berkeley National Lab and Joint Bioenergy Institute. She earned both her Ph.D. and M.S. in Agricultural and Biosystems Engineering at Iowa State University.