

CoFE '26 Workshop

Life Cycle Assessment

Why this workshop?

Sustainability has become a strategic priority in the food industry, and life-cycle assessment (LCA) is the standard framework for quantifying the environmental impacts of a product or process from raw materials through end-of-life. This workshop gives participants a concise, practical grounding in LCA methodology and ISO standards, then puts that knowledge to work through a live demonstration of open-access LCA tools. Participants leave with a working understanding of how to frame, run, and interpret a simplified LCA for their own products or processes.

Learning outcomes

1. Understand the fundamental principles of LCA and their alignment with ISO standards.
2. Apply life-cycle thinking to food systems, including functional units and system boundaries.
3. Use open-access LCA tools to build and interpret a simplified case study for food production.
4. Identify how LCA results can inform sustainability decisions in industry and research settings.

Target audience

- Industry professionals: engineers, sustainability managers, and decision makers in food seeking a practical entry point into LCA
- Academia: researchers, educators, and students in food engineering and related fields
- Anyone interested in applying LCA to real-world food systems

Prerequisites

No prior experience with LCA is required. A general interest in food engineering or sustainability is sufficient.

Workshop format

In-person, 90-min session combining foundational segments and hands-on exercises:

1. LCA fundamentals and life-cycle thinking (40 mins)
2. Hands-on tool demonstration (30 mins)
3. Group discussion and Q&A (20 mins): applying LCA to participants' own systems; opportunities and challenges for adoption.

Instructors

Dr. Minliang Yang, Assistant Professor, NC State University

Dr. Ziyne Boz, Assistant Professor, University of Florida

Costs

See conference website.

Questions

Email Minliang Yang (minliang_yang@ncsu.edu) or Ziyne Boz (ziynetboz@ufl.edu)