**Course name: LCA in practice**

**Course tutor: Professor Jhuma Sadhukhan**

[**https://www.surrey.ac.uk/people/jhuma-sadhukhan**](https://www.surrey.ac.uk/people/jhuma-sadhukhan)

**Dates: 28-30 October 2024 9:00-17:00**

**Location: University of Surrey, Guildford, GU2 7XH, UK**

**Scope**: Life Cycle Assessment (LCA) is a robust and systematic methodology to evaluate and analyse the environmental impacts of a product or service system across its whole life cycle. This course aims to develop skills in the LCA methodology by providing in-depth training on LCA methodology, and practical experience of doing LCAs in practice. This concise course provides an overview of LCA methodology including impact assessment and management of uncertainty; and practical experience of executing an LCA using open sources as much as possible. It gives an exposure to a range of resources available to do LCA (life cycle inventory databases, life cycle impact assessment (LCIA) methods, etc.).

**Learning outcomes**

1. Be able to deploy resources required to do an LCA study in practice
2. Identify the key benefits and challenges of the application of LCA for a range of purposes
3. Develop practical skills in LCA problem-solving
4. Be able to critically evaluate the quality of an LCA study done by others

Methods of teaching and learning

Lectures (6 hours), interactive training and hands-on experience (6 hours) and self-learning and reflection (4.5 hours)

**Skills developed**

**Digital Capabilities** – This concise training provides delegates with first-hand experience with LCA. The experience gained is transferrable to other LCA software. Moreover, LCA can be conducted on spreadsheets. This develops skills in formula application and this experience is valuable for other aspects of work and life, not just within LCA.

**Sustainability** – This learning will take place through gaining first-hand experience in using LCA to comprehensively evaluate the impact that a product and process can have over its life cycle. Delegates learn about the environmental impacts that a certain product or process may have on the environment and how LCA can be applied to reduce these impacts.

**Resourcefulness and Resilience** – The concise course requires delegates to develop independence and proactivity skills throughout. During the course, delegates will apply agility, self-awareness and teamwork skills.

**Global and Cultural Capabilities** – This concise course helps build global and cultural capabilities through LCA group exercises during the course that require a team working and cooperation between team members with diverse cultures.

**Reading materials**

<https://onlinelibrary.wiley.com/doi/book/10.1002/9781118698129>

**Schedule of each day**

9:00-9:15: Arrival and introduction (breakfast provided)

9:15-11:15: face-to-face lecture

11:15-12:00: break (refreshments provided)

12:00-13:00: interactive training

13:00-14:00: Lunch provided

14:00-15:00: Hands-on experience

15:00-15:30: Break (refreshments provided)

15:30-17:00: Self-learning and reflection