



## Life Cycle Assessment of a Universal Timber Slab (1)

In the context of sustainable construction, Life Cycle Assessment (LCA) is gaining increasing importance, particularly when integrated into the design phase. By incorporating LCA early in the design process, architects and engineers can make informed decisions that significantly reduce environmental impacts, optimize resource use, and enhance the overall sustainability of buildings.

This Master's thesis focuses on the creation of an LCA for the UniversalTimberSlab, a timber-based load-bearing structure for multi-storey buildings. This includes goal and scope definition of the LCA, data collection regarding materials and processes needed for the production of the UniversalTimberSlab, evaluation and interpretation of the LCA results. A central component of the work is the development of generic models in the GaBi software. The goal of this Master's thesis is to provide a comprehensive overview of the environmental impacts of UniversalTimberSlab and to contribute to the development of sustainable construction practices.

### Requirements:

- Enrollment in a Master's program
- Interest in topics such as construction, resource and energy efficiency, circular economy, innovative technologies, LCA, and sustainability
- Reliable, careful, and independent work ethic
- Proficiency in MS Office, especially Excel
- Advantageous: Experience with GaBi
- Good command of English, both written and spoken

### We offer:

- Independent work in an interdisciplinary team
- Coffee

### Bewerbung:

If you are interested or have any questions, we look forward to hearing from you. Please attach your current application documents (CV, transcript, motivation letter, certificates, etc.) to your application. Send them to:  
[bewerbung-gabi@iabp.uni-stuttgart.de](mailto:bewerbung-gabi@iabp.uni-stuttgart.de)

Information on the handling of applicant data can be found at:  
<https://www.uni-stuttgart.de/datenschutz/bewerbung/>

The department Life Cycle Engineering  
(GaBi) offers a

## Master's thesis

For Students from Architectur, ITECH, civil  
engineering, environmental engineering or  
similar

**Starting January 2025**