

The Chair of Sustainable Construction invites to the open lecture:

Towards massive use of biomass in construction building industry

by Prof. Dr. Sofiane Amziane,
Université Clermont Auvergne, France

January 30th, 2023



The lecture will discuss the increasing use of plant-based materials in the construction of houses as a viable option for healthy, ecological, and comfortable habitats. The use of crushed hemp, flax, and other plants mixed with mineral binders has become popular in this revolution of building materials. Global warming, energy savings, and life cycle analysis are contributing factors to the rapid expansion of plant-based materials in the building industry, which are seen as environmentally friendly and efficient multifunctional materials.

One of the main drivers of this shift towards plant-based materials is the requirement, set by the latest COP, that all new buildings meet positive energy criteria in many countries starting in 2020. This improvement in energy performance of buildings means that the manufacturing phase, where energy consumption can decrease from 200 to 15 kWh/m²/yr, becomes the most important in terms of environmental impacts. Plant-based materials, with their limited or even positive impacts on the environment, are a logical choice in reducing these impacts.

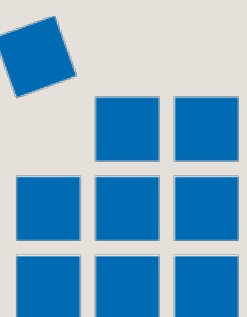
The lecture will highlight the latest developments in the use of bio-based building materials at various scales. These materials have been shown to have benefits in moisture management, thermics, and acoustics, making them a valuable option for creating comfortable and healthy living spaces. Overall, the use of plant-based materials in construction is no longer a niche concept limited to a few ecologist, but rather a mainstream solution with many benefits for the environment and building industry.

Event Time: January 30th, 2023, 16:00h

ETH Zurich, Hoenggerberg, HIL E 6

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Zoom; <https://ethz.zoom.us/j/65142809684>



**Institute of Construction and
Infrastructure Management**
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