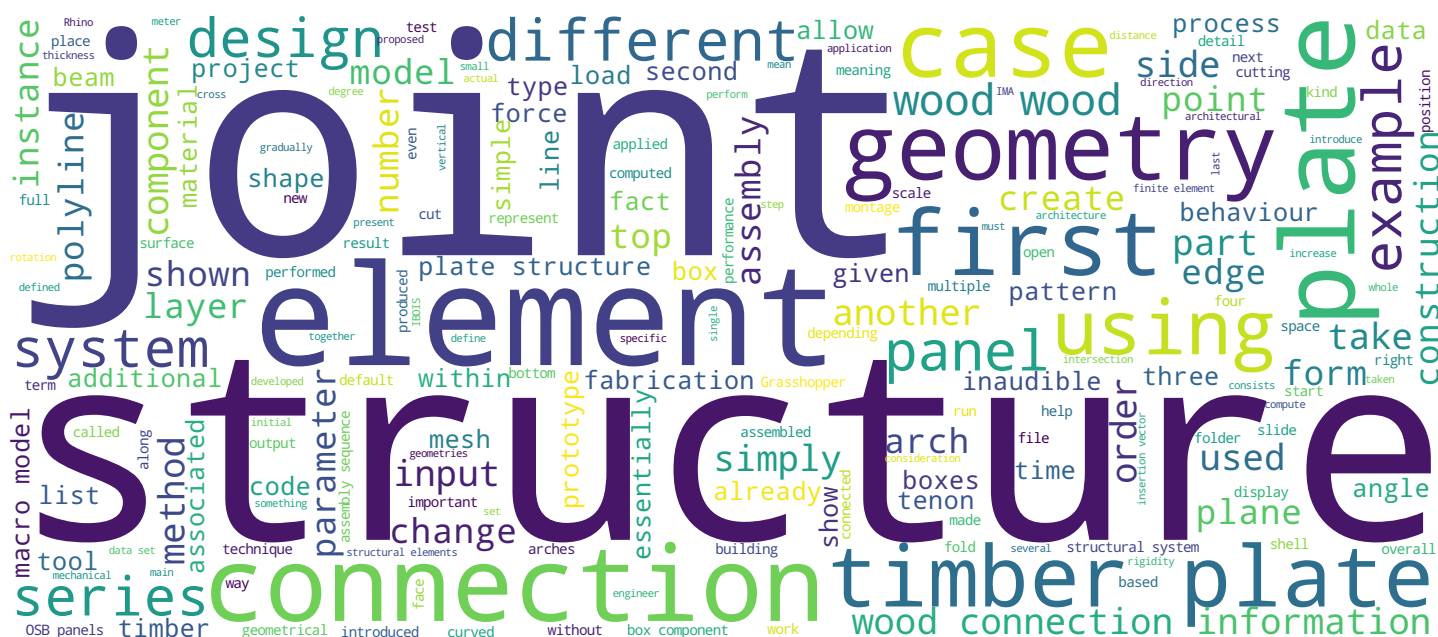


Prof. Dr. Yves Weinand



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Video





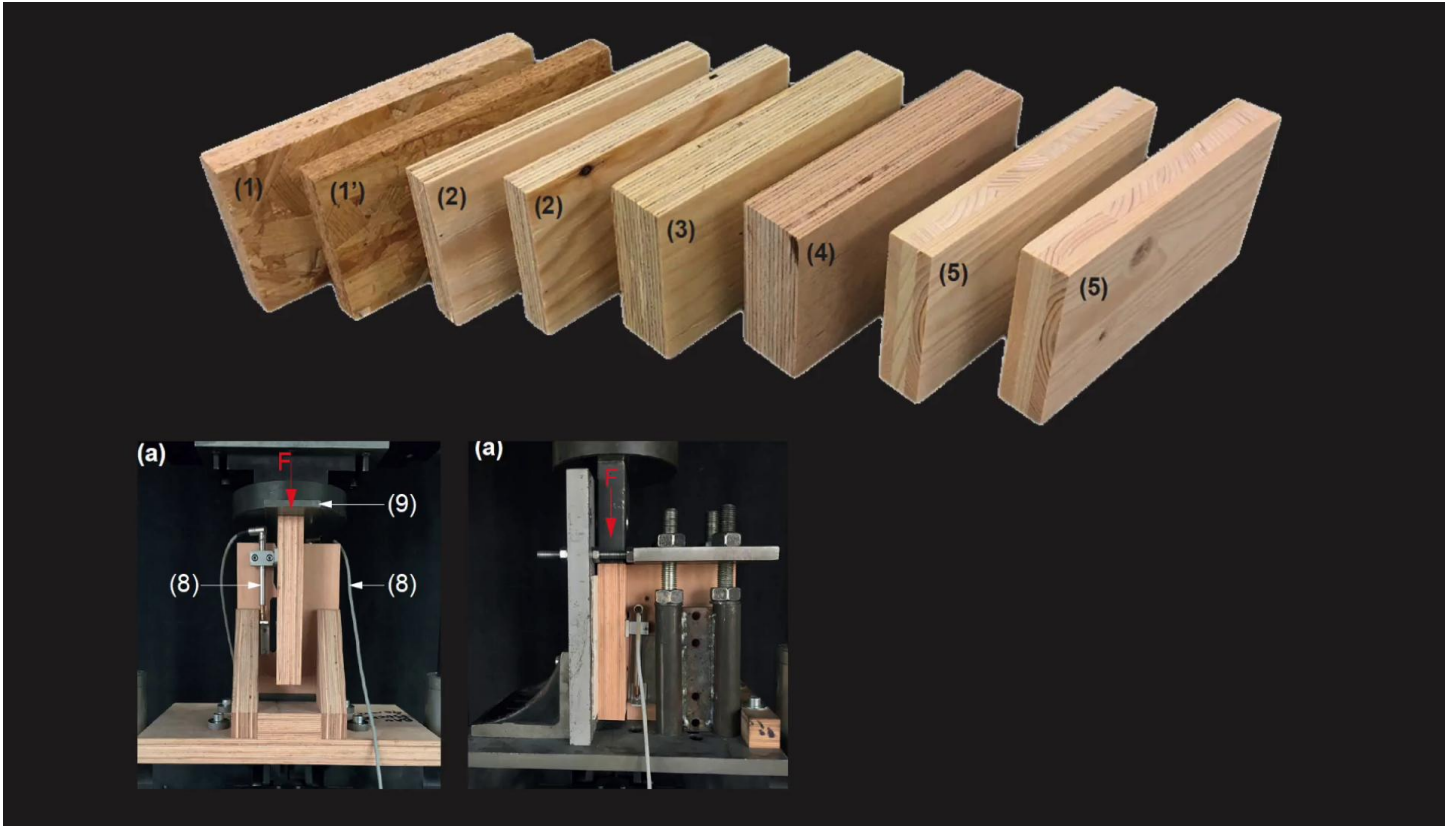
The next prototype refers to orthogonal geometries, prefabricated timber plates with standard geometry. This research aims to develop a circular construction system for the standardised architectural application by offering standardised structural timber elements using wood-wood connections as a prime basic building component, putting the focus on developing standard prefabricated structural elements roofs laps. The aim is to bring those techniques into common practice.

Notes

Summary



0m 04s

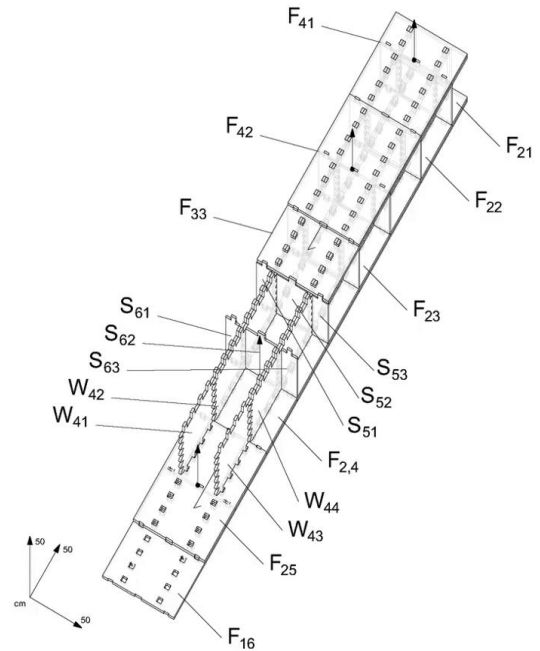
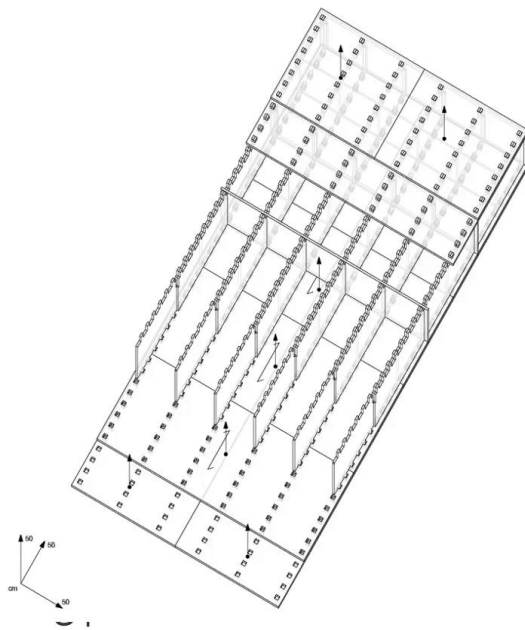


Oriented strand board, OSB panels, are primarily used as the basis of the construction material.

Notes

Summary



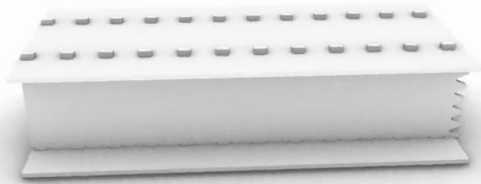


Those panels are cost-effective. Choose a range of beams were produced and tested using a physical model. In fact, OSB panels are very common, and the connections are usually made with the help of screws or nails. Using the geometry shown here, roof structures, or wall structures made out of orthotropic panels are designed. Nevertheless, in general, all sorts of geometries could be performed.

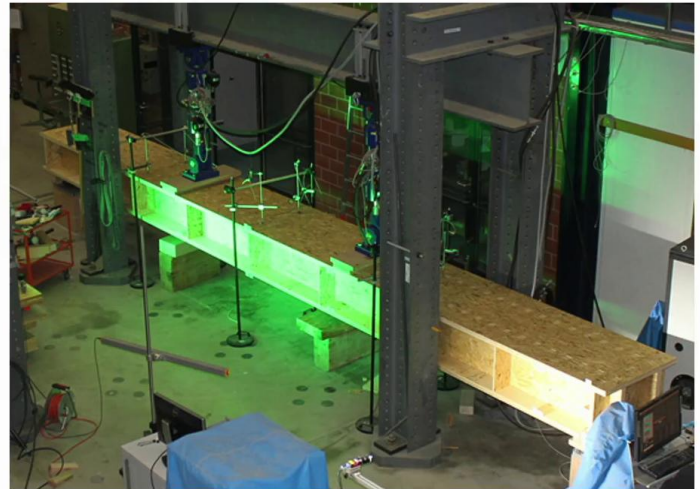
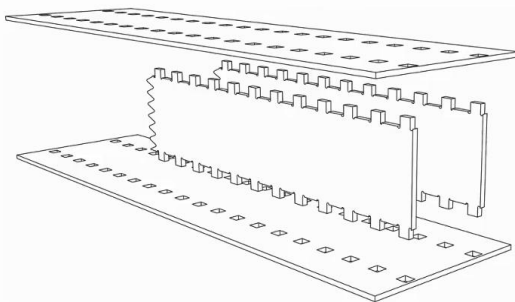
Notes

Summary





■ Advanced Timber Plate Structural Design

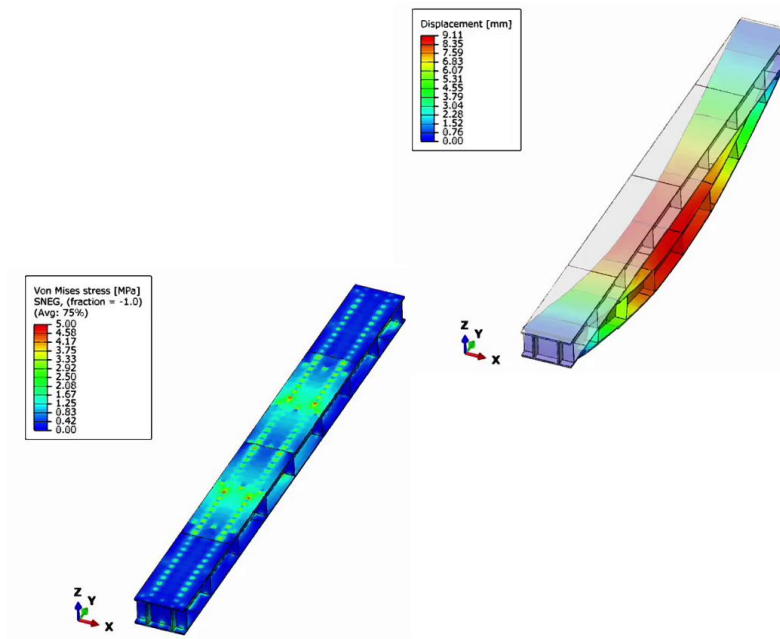


The fabrication constraints of such lap elements are calibrated by commercial dimensions of USB panels. The basic idea still stays, in fact, to create a completely[inaudible 00:01:21] structure that can be reused. In addition, here, the primary structural system and second structural system fused to one single surface structure.

Notes

Summary





[inaudible 00:01:31] elements and wall elements can be directly built out of those structural elements, making them very competitive. The results indicating that the wood-wood connections are mechanically efficient, even when OSB panels are used, and they satisfy the current standards for timber engineering, especially [inaudible 00:01:53].

Notes

Summary



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Notes

Summary

