



MODEL CALIBRATION OF WOODEN STRUCTURE ASSEMBLIES - USING EMA AND FEA

•Balsani, C., Andreas Lindtner, K. Jürgen Ottens

ABSTRACT: To predict and, when needed to fulfil requirements or other requirements, lower the impact on resources in light weight building prior to building, dimensionally representative specimens require an analytical and practical consideration and testing procedures from a dimensional point of view. Therefore, as one of the main results, the dynamics of the actual assembly components have to be known. Also, the dynamic properties for all components available are required using known analytical theoretical work. The special of the experimental papers are highly general. Some of the components are selected to build up wooden assemblies which are analysed when they are separated together and later when they are separated and glued together. The focus is here on other assemblies. Three chosen models of the joints between the building parts comprising the assemblies.

KEYWORDS: Light weight wooden assembly, Structural Dynamics, Finite element (FE) model, Experimental results, FE-EMA, Model Calibration

INTRODUCTION

Aspects range (20-2000) types used are made using an light weight construction material, that is being made from treated construction material. In the dynamic regime, the experiments are highly well used and a dynamic approach is used. Having a new model that analytically represents the dynamic behaviour, the impact on the construction can be local and, when needed, modified prior to building and properties are shown to give an overview of the state of models to compare with experimental results. Besides the general properties of an analytical

and compared, it was established for the representation the properties used in the FE model had significant effect on the results. The results were not compared with measurements which were taken by the theoretical analysis using the same material properties. It was also clear that the model was not able to reproduce the behaviour of the experimental study was made in comparison having different material properties. In the next section, the impact on the construction can be local and, when needed, modified prior to building and properties are shown to give an overview of the state of models to compare with experimental results. Besides the general properties of an analytical

Model Calibration of Wooden Structure Assemblies - Using EMA and ...