



MODEL CALIBRATION OF WOODEN STRUCTURE ASSEMBLIES - USING EMA AND FEA

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ABSTRACT: To predict and, when needed to fulfil requirements or other requirements, lower the impact on resources in light weight building parts in building, dimensionally representative specimens require an analytical and practical consideration and building experience from a dimensional point of view. Therefore, in this paper, the dynamics of the actual assembly components have to be known. Also, the dynamic properties for all components available are to be used using known analytical or numerical methods. The special of the experimental part are hereby given. Some of the components are selected to build up wooden assemblies which are analysed when they are connected together and later when they are separated and glued together. The focus is here on other assemblies. Three chosen models of the connection 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

Assembly range (20-200kg) range used are made using an light weight wooden assembly. This is being made from board construction materials. In the assembly range, the components are light weight and a dynamic approach is used. Having a new model that analytically represents the dynamics of assembly, the model could be used to predict and, when needed, modified prior to building and properties are shown in this paper. The model is used to predict and, when needed, modified prior to building and properties are shown in this paper. The model is used to predict and, when needed, modified prior to building and properties are shown in this paper.

and compared, it was concluded that the representation the specimens used in the FE model had significant effect on the results. The results were not compared with measurements taken from the actual assembly. The results were not compared with measurements taken from the actual assembly. The results were not compared with measurements taken from the actual assembly. The results were not compared with measurements taken from the actual assembly.

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