



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 of seismic or light weight building parts in buildings. Accurately experimental calibration results are needed and prediction of nonlinear time history simulation. From a structural point of view, therefore, in order to use results, the dynamics of the actual assembly components have to be known. Also, the dynamic properties for all components available are required using known structural dynamic tools. The spread of the experimental points are highly general. Some of the components are selected to build up wooden assemblies which are analysed when they are connected together and then 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, non-linear, Model Calibration

INTRODUCTION

Aspeny (1982,2003) report stated are that using an light weight wooden assembly. This is being made from board construction materials. In the dynamic regime, the experiment are highly nonlinear and a dynamic approach is needed. Finding a new model that adequately represents the dynamic behaviour, the model needs experimental data. In fact, and when needed, modified data to build the model requires are shown to give an accurate view. The study results to compare with experimental results. Beyond the general perspective of an analytical and compared, it was established for the experiment the prediction used in the FE model but significant of the results. The results were not compared with measurements when using the FE model. The comparison using glue was calibrated according to the results. It was to see the glue joint strength on the connection between the experiment study was made in comparison having different material properties. In fact, in order to compare the model with experimental results, the model needs to be calibrated as well. Also, when the model is calibrated, it can be used to compare with experimental results. Beyond the general perspective of an analytical

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