



Comparison of the Seismic Performance of Different Hybrid Timber-Steel Frame Configurations

<https://research.thinkwood.com/en/permalink/catalogue1775>

Author: Marin, Jose Alberto
He, Minjuan

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Application: Hybrid Building Systems
Shear Walls

Topic: Seismic
Design and Systems

Keywords: Finite Element Model
Timber-Steel Hybrid
Deformation
Lateral Loading
Abaqus
Displacement
Inter-Story Drift
Diaphragm

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 5401-5408

Summary:

This paper presents a finite element modeling case study of three different designs of hybrid timber-steel 6-story buildings. One of the buildings is composed by steel frames and timber diaphragms while the other two cases consist of the initial design with timber shear walls added in different dispositions, one with outer walls and the other...

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Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1650102>



Compression Perpendicular to Grain Behavior for the Design of a Prefabricated CLT Facade Horizontal Joint

<https://research.thinkwood.com/en/permalink/catalogue1540>

Author: Gasparri, Eugenia
Lam, Frank
Liu, Yingyang

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems
Hybrid Building Systems

Topic: Connections
Design and Systems

Keywords: Envelope
Joints
Self-Tapping Screws
Finite Element Analysis
Prefabricated
Vertical Loads

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 1088-1098

Summary:

The present work aims to define horizontal joint dimension tolerances for newly proposed prefabricated façade systems for applications in tall cross laminated timber (CLT) buildings based on the compression perpendicular to grain characteristics of the component. This requires a thorough understanding of structural settlement under vertical...

Online Access: Free

Resource Link

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Geometrical Aspects for the Design of Prefabricated Load-Bearing Timber-Glass-Facades

<https://research.thinkwood.com/en/permalink/catalogue1746>

Author: Pascha, Khaled Saleh
Pascha, Vitalija
Winter, Wolfgang

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: Timber-Glass Composite

Application: Hybrid Building Systems

Topic: Design and Systems
Mechanical Properties

Keywords: Façade
Prefabricated
Load-Bearing Capacity

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

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p. 4947-4955

Summary:

The considerable increase in the architectural demands for highly transparent and load-bearing structures have recently resulted in the development of an innovative hybrid structure. This article provides a review of design parameters for Timber-Glass composite facades. The design/architectural question, which arose in the project, was how...

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