



## 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...

Online Access: Free

### Resource Link

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



# Ductility Estimation for a Novel Timber-Steel-Hybrid System with Consideration of Uncertainty

<https://research.thinkwood.com/en/permalink/catalogue389>

Author: Zhang, Xiaoyue  
Fairhurst, Michael  
Kaushik, Kuldeep  
Tannert, Thomas

Publisher: American Society of Civil Engineers

Year of Publication: 2015

Country of Publication: United States

Format: Journal Article

Application: Hybrid Building Systems

Topic: Design and Systems  
Seismic  
Connections

Keywords: Ductility Factors  
High-Rise  
National Building Code of Canada  
FFTT  
Non-linear Dynamic Analysis  
Lateral Load Resisting System  
Timber-Steel Hybrid

Language: English

Research Status: Complete

Series: Structures Congress

Summary:

In the 2010 National Building Code of Canada (NRC 2010), certain structures can be designed for seismic loads using an equivalent static force procedure. In these provisions, elastic design forces are reduced by a ductility factor,  $R_d$ , which accounts for...

Online Access: Free

## Resource Link

[https://s3.amazonaws.com/academia.edu.documents/39814847/9780784479117.178.pdf?response-content-disposition=inline%3B%20filename%3DDuctility\\_Estimation\\_for\\_a\\_Novel\\_Timber-.pdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAWOWYYGZ2Y53UL3A%2F20191203%2Fus-east-1%2Fs3%2Faws4\\_request&X-Amz-Date=20191203T235859Z&X-Amz-Expires=3600&X-Amz-SignedHeaders=host&X-Amz-Signature=84aaf5d2ad7e050986edf6f94d000b0f38768c3c0c1f103aa55782ec6f0e94a4](https://s3.amazonaws.com/academia.edu.documents/39814847/9780784479117.178.pdf?response-content-disposition=inline%3B%20filename%3DDuctility_Estimation_for_a_Novel_Timber-.pdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAWOWYYGZ2Y53UL3A%2F20191203%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20191203T235859Z&X-Amz-Expires=3600&X-Amz-SignedHeaders=host&X-Amz-Signature=84aaf5d2ad7e050986edf6f94d000b0f38768c3c0c1f103aa55782ec6f0e94a4)



# Lateral Load-Resisting System Using Mass Timber Panel for High-Rise Buildings

<https://research.thinkwood.com/en/permalink/catalogue1221>

Author: Chen, Zhiyong  
Chui, Ying-hei

Publisher: Frontiers Media

Year of Publication: 2017

Country of Publication: Switzerland

Format: Journal Article

Material: LSL (Laminated Strand Lumber)

Application: Shear Walls  
Hybrid Building Systems

Topic: Seismic  
Wind  
Design and Systems

Keywords: Lateral Load Resisting System  
High-Rise  
Dowel-Type Connections  
FE model  
Linear Static Analysis  
Non-linear Dynamic Analysis  
Timber-Steel Hybrid

Language: English

Research Status: Complete

Series: Frontiers in Built Environment

Online Access: Free

## Resource Link

<https://doi.org/10.3389/fbuil.2017.00040>