

Assessment of Connections in Cross-Laminated Timber Buildings Regarding Structural Robustness

<https://research.thinkwood.com/en/permalink/catalogue1948>

Author: Huber, Johannes
Ekevad, Mats
Berg, Sven
Girhammar, Ulf

Year of Publication: 2018

Country of Publication: Korea

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Connections
Mechanical Properties

Keywords: Finite Element Method
Deformation
Multi-Storey

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 20-23, 2018, Seoul, Republic of Korea

Online Access: Free

Resource Link

https://www.researchgate.net/publication/327176536_ASSESSMENT_OF_CONNECTIONS_IN_CROSS-LAMINATED_TIMBER_BUILDINGS_REGARDING_STRUCTURAL_ROBUSTNESS



Assessment of Disproportionate Collapse for Multi Storey Cross Laminated Timber Buildings

<https://research.thinkwood.com/en/permalink/catalogue1664>

Author: Mpidi Bitu, Hercend
Currie, Neil
Tannert, Thomas

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Connections
Mechanical Properties

Keywords: Rotational Stiffness
Multi-Storey
Ductility
Loading

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 3725-3733

Summary:

This paper investigates the risk of disproportionate collapse following extreme loading events. The methodology mimics a sudden removal of a loadbearing wall of a twelve-storey CLT building. The ductility-demand from the dynamic simulation is checked against the ductility supplied by the structural components and their connections...

Online Access: Free

Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1649374> ↗



Calculative Cost and Process Analysis of Timber-Concrete-Composite Ceilings with Focus on Effort and Performance Values for Cost Calculations of Multi-Storey Timber Buildings

<https://research.thinkwood.com/en/permalink/catalogue1753>

Author: Koppelhuber, Joerg
Leitenbauer, Alexander
Heck, Detlef

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: Timber-Concrete Composite
CLT (Cross-Laminated Timber)

Application: Ceilings

Topic: Cost

Keywords: Prefabrication
Multi-Storey

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 5006-5014

Summary:

Composite structures use the advantages of two materials – timber and concrete – and improve the efficiency of a material application. Especially the concept of timber-concrete-composite ceilings has synergetic effects to achieve an effective ratio of thickness to span with high cost effectiveness simultaneously. Following the systematic...

Online Access: Free

Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1650022> ↗



CLT Buildings Laterally Braced with Core and Perimeter Walls

<https://research.thinkwood.com/en/permalink/catalogue1663>

Author: Polastri, Andrea
Loss, Cristiano
Pozza, Luca
Smith, Ian

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Shear Walls

Topic: Connections
Seismic

Keywords: Multi-Storey
Numerical Models
X-RAD

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 3706-3715

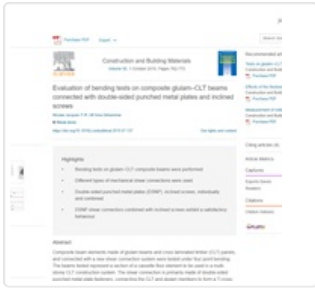
Summary:

In this work the behaviour of hybrid multi-storey buildings braced with Cross-Laminated-Timber (CLT) cores and shear-walls is studied based on numerical analyses. Two procedures for calibrating numerical models are adopted and compared to test data and application of provisions in current design codes. The paper presents calibration of...

Online Access: Free

Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1649372> 



Evaluation of Bending Tests on Composite Glulam-CLT Beams Connected with Double-Sided Punched Metal Plates and Inclined Screws

<https://research.thinkwood.com/en/permalink/catalogue436>

Author: Jacquier, Nicolas
Girhammar, Ulf

Publisher: ScienceDirect

Year of Publication: 2015

Country of Publication: Netherlands

Format: Journal Article

Material: CLT (Cross-Laminated Timber)
Glulam (Glue-Laminated Timber)

Application: Floors

Topic: Connections
Mechanical Properties

Keywords: Multi-Storey
Four Point Bending Test
Shear connection
Double-sided Punched Metal Plate
Separation Forces

Language: English

Research Status: Complete

Series: Construction and Building Materials

Online Access: Free

Resource Link

<https://www.diva-portal.org/smash/get/diva2:996172/FULLTEXT01.pdf>



Influence of the Connection Modelling on the Seismic Behaviour of Crosslam Timber Buildings

<https://research.thinkwood.com/en/permalink/catalogue660>

Author: Sustersic, Iztok
Dujic, Bruno
Fragiacomo, Massimo

Publisher: Springer, Dordrecht

Year of Publication: 2014

Country of Publication: Netherlands

Format: Book Section

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Connections
Seismic

Keywords: Multi-Storey
Connection Flexibility
Natural Vibration
Shear Force
Ductility
Ground Acceleration

Language: English

Research Status: Complete

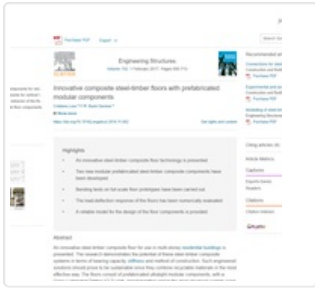
Series: Materials and Joints in Timber Structures

ISBN: 978-94-007-7811-5

Online Access: Payment Required

Resource Link

http://dx.doi.org/10.1007/978-94-007-7811-5_61



Innovative Composite Steel-Timber Floors with Prefabricated Modular Components

<https://research.thinkwood.com/en/permalink/catalogue1350>

Author: Loss, Cristiano
Davison, Buick

Publisher: ScienceDirect

Year of Publication: 2017

Country of Publication: Netherlands

Format: Journal Article

Material: CLT (Cross-Laminated Timber)
Steel-Timber Composite

Application: Floors

Topic: Connections
Design and Systems
Mechanical Properties

Keywords: Prefabricated
Multi-Storey
Residential
Bearing Capacity
Stiffness
Construction
Mechanical Connectors
Epoxy
Modular
Bending Tests
Finite Element Model

Language: English

Research Status: Complete

Series: Engineering Structures

Online Access: Free

Resource Link

<http://eprints.whiterose.ac.uk/109977/3/Innovative%20Composite%20Steel-Timber%20Floors%20with%20Prefabricated%20Modular%20Components.pdf>



Innovative Construction System for Sustainable Buildings

<https://research.thinkwood.com/en/permalink/catalogue140>

Author: Loss, Cristiano
Piazza, Maurizio
Zandonini, Riccardo

Year of Publication: 2015

Country of Publication: Switzerland

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems
Floors
Shear Walls

Topic: Cost
Design and Systems

Keywords: Prefabrication
Residential
Timber-Steel Hybrid
Numerical Analysis
Multi-Storey
Joints

Language: English

Conference: International Association for Bridge and Structural Engineering Conference

Research Status: Complete

Notes: September 23-25, 2015, Geneva, Switzerland

Online Access: Payment Required

Resource Link

https://www.researchgate.net/profile/Cristiano_Loss/publication/281462056_Innovative_construction_system_for_sustainable_buildings/links/55e9b90808ae65b6389b2853/Innovative-construction-system-for-sustainable-buildings.pdf



Seismic Design of Multi-Storey Cross Laminated Timber Buildings According to Eurocode 8

<https://research.thinkwood.com/en/permalink/catalogue392>

Author: Follesa, Maurizio
Christovasilis, Ioannis
Vassallo, Davide
Fragiacomo, Massimo
Ceccotti, Ario

Year of Publication: 2013

Country of Publication: Italy

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Seismic
Connections

Keywords: Eurocode 8
Multi-Storey

Language: English

Research Status: Complete

Series: International Journal of Earthquake Engineering

Online Access: Free

Resource Link

https://www.researchgate.net/profile/Ioannis_Christovasilis/publication/289240561_Seismic_design_of_multi-storey_cross_laminated_timber_buildings_according_to_Eurocode_8/links/57229cfb08ae586b21d3fb31.pdf



Structural Analysis of CLT Multi-Storey Buildings Assembled with the Innovative X-RAD Connection System: Case-Study of a Tall-Building

<https://research.thinkwood.com/en/permalink/catalogue1787>

Author: Polastri, Andrea
Giongo, Ivan
Pacchioli, Stefano
Piazza, Maurizio

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Connections
Mechanical Properties

Keywords: Multi-Storey
X-RAD
Fully Threaded Screws

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 5868-5877

Summary:

The cross laminated timber (CLT) technology is nowadays a well-known construction system, which that can be applied to several typologies of residential and commercial buildings. However some critical issues exist which limit the full development of the CLT construction technology: problems in handling, difficulty in assembling...

Online Access: Free

Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1650204>