



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

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

Author: Johannes Huber
Mats Ekevad
Sven Berg
Ulf Girhammar

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://indico.conference4me.psnrc.pl/event/171/session/325/contribution/35/material/paper/1.pdf>



Assessment of Disproportionate Collapse for Multi Storey Cross Laminated Timber Buildings

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

Author: Hercend Mpidi Bitu
Neil Currie
Thomas Tannert

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

Abstract:

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> ↗



CLT Buildings Laterally Braced with Core and Perimeter Walls

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

Author: Andrea Polastri
Cristiano Loss
Luca Pozza
Ian Smith

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

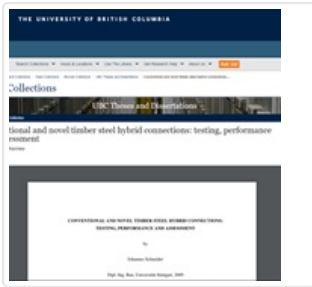
Abstract:

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>



Conventional and Novel Timber Steel Hybrid Connections: Testing, Performance and Assessment

<https://research.thinkwood.com/en/permalink/catalogue187>

Author: Johannes Schneider
Organization: University of British Columbia
Year of Publication: 2015
Country of Publication: Canada
Format: Thesis
Material: CLT (Cross-Laminated Timber)
Application: Wood Building Systems
Topic: Connections
Seismic
Keywords: Timber-Steel Hybrid
Fasteners
Quasi-Static
Monotonic Loading
Cyclic Loading
Brackets
Tube Connections
Language: English
Research Status: Complete
Online Access: Free

Resource Link

<http://hdl.handle.net/2429/54140> 



Cross-Laminated Timber Shear Connections with Double-Angled Self-Tapping Screw Assemblies

<https://research.thinkwood.com/en/permalink/catalogue544>

Author: Afrin Hossain
Ilana Danzig
Thomas Tannert

Publisher: American Society of Civil Engineers

Year of Publication: 2016

Country of Publication: United States

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: Connections
Mechanical Properties

Keywords: Self-Tapping Screws
Shear Resistance Performance
Shear Connection
Quasi-Static
Reverse Cyclic Loading
Lateral Load

Language: English

Research Status: Complete

Series: Journal of Structural Engineering

Abstract:

The research presented in this paper examines the shear resistance performance of self-tapping screws (STS) in three-ply cross-laminated timber (CLT) panels. Specifically, the feasibility of using innovative STS assemblies with double inclination of fast...

Online Access: Free

Resource Link

https://www.researchgate.net/profile/Afrin_Hossain/publication/303794366_Cross-Laminated_Timber_Shear_Connections_with_Double-Angled_Self-Tapping_Screw_Assemblies/links/5c4f62ca299bf12be3ea2852/Cross-Laminated-Timber-Shear-Connections-with-Double-Angled-Self-Tapping-Screw-Assemblies.pdf



Determination of Seismic Performance Factors for CLT Shear Wall Systems

<https://research.thinkwood.com/en/permalink/catalogue770>

Author: M. Omar Amini
John van de Lindt
Douglas Rammer
Shiling Pei
Philip Line
Marjan Popovski

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Shear Walls

Topic: Connections
Seismic

Keywords: Angle Bracket
Cyclic Tests
US
Quasi-Static
Seismic Performance Factors

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria

Abstract:

This paper presents selected results of connector testing and wall testing which were part of a Forest Products Lab-funded project undertaken at Colorado State University in an effort to determine seismic performance factors for cross laminated timber (C...

Online Access: Free

Resource Link

https://www.fpl.fs.fed.us/documnts/pdf2016/fpl_2016_amini001.pdf



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: Nicolas Jacquier
Ulf Girhammar

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>



Experimental and Numerical Investigation of Novel Steel-Timber-Hybrid System

<https://research.thinkwood.com/en/permalink/catalogue81>

Author: Pooja Bhat
 Riasat Azim
 Marjan Popovski
 Thomas Tannert

Year of Publication: 2014

Country of Publication: Canada

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Design and Systems
 Seismic
 Connections

Keywords: Tall Wood
 Timber-Steel Hybrid
 FFTT
 Quasi-Static
 Monotonic Testing
 Cyclic Testing
 Strong-column Weak-beam Failure

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 10-14, 2014, Quebec City, Canada

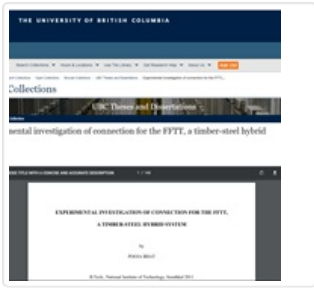
Abstract:

This paper summarises the experimental and numerical investigation conducted on the main connection of a novel steel-timber hybrid system called FFTT. The component behaviour of the hybrid system was investigated using quasistatic monotonic and reversed ...

Online Access: Free

Resource Link

http://newbuildscanada.ca/wp-content/uploads/2010/11/wcte-2014_PAP355_Bhat.pdf




Experimental Investigation of Connection for the FFTT, A Timber-Steel Hybrid System

<https://research.thinkwood.com/en/permalink/catalogue269>

Author: Pooja Bhat
Organization: University of British Columbia
Year of Publication: 2013
Country of Publication: Canada
Format: Thesis
Material: CLT (Cross-Laminated Timber)
Application: Hybrid Building Systems
Topic: Connections
Design and Systems
Mechanical Properties
Keywords: FFTT
Quasi-Static
Monotonic Testing
Reverse Cyclic Testing
Embedment Depth
Embedment Length
Strong-column Weak-beam Failure
Cross-Section Reduction
Language: English
Research Status: Complete
Online Access: Free

Resource Link

<https://doi.org/10.14288/1.0074199> 



High Performance Cross-Laminated-Timber Shear Connection with Self-Tapping Screw Assemblies

<https://research.thinkwood.com/en/permalink/catalogue504>

Author: Ilana Danzig
 Maximilian Closen
 Thomas Tannert

Year of Publication: 2014

Country of Publication: Canada

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Connections
 Mechanical Properties

Keywords: Self-Tapping Screws
 Panels
 Full Scale
 Quasi-Static
 Reverse Cyclic Loading

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 10-14, 2014, Quebec City, Canada

Abstract:

The research presented in this paper examines the performance of a shear connection using self-tapping screws (STS) in 3-ply Cross-Laminated Timber (CLT) panels. CLT panels were connected with STS assemblies at an inclined angle in two directions. The ca...

Online Access: Free

Resource Link

http://schr.ws/hosted_files/wcte2014/4e/ABS353_Danzig_web.pdf