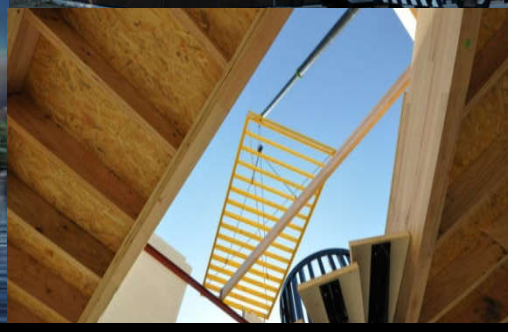
WoodSolutions Workshop



A Guide for Wood Construction Systems
Workshop for Engineers & Architects

This Workshop and the Guide for Wood Construction Systems is designed to assist practicing structural engineers and architects to confidently develop conceptual structural designs for timber-rich buildings and structures.

As many design professionals working on commercial scale structures are typically skilled with concrete and steel structures, the Guide for Wood Construction Systems takes a whole-of-process approach to the selection of timber-rich structural systems.

Experienced design professionals will speak on recent examples of timber building projects in Australia and Europe to illustrate the design, structural performance and cost savings of timber buildings.

This seminar is a must for structural engineers and architects.

Cost
Free for all Engineers and Architects

Date
Thursday 11 October 2018

Venue
Broncos Leagues Club
98 Fulcher Rd, Red Hill

Time
1.00 pm for 1.30 - 5.00pm

Food
Afternoon tea will be served

CPD
CPD certificates of attendance available for all professions.
3.5 formal CPD points available for architects.

Program & Speakers
Overleaf

Left image: Aveo Norwest, Architect: Jackson Teece, Structural Engineer: Taylor Thomson Whitting, Photo: Jackson Teece
Top right image: Meyer Timber Sydney Office Architect: Hassell, Engineer: Robert Bird Group. Photo: TBS
Bottom right image: Meyer Timber Sydney Office Architect: Hassell, Engineer: Robert Bird Group. Photo: TBS

A Guide for Wood Construction Systems

Program & Speaker Overview

1.00 **Registration. Tea & Coffee.**

1.30 **Welcome and Introduction**

1.30 **Session 1**

Advances in European Timber Construction

Professor Christophe Sigrist, Berne University of Applied Sciences

Central Europe is one of the leading location in the world for innovation on timber products, processes and applications – structural or otherwise. In this seminar, Professor of Timber Engineering Christophe Sigrist will provide an overview of recent developments in timber construction from small to large buildings and from simple to complex structures. He will highlight interesting ideas regarding materials, processes, connections and assembly and show their application in recent projects

A regular visitor to Australia, Christophe teaches at one of Europe's leading timber engineering research and educational facilities, the Department of Architecture, Wood and Civil Engineering (AHB) of the Berne University of Applied Sciences where he is regularly involved with innovative material and structural development and joint design.

2.45 **Session 2**

Designing Safe Timber Buildings - Fire Research for Modern Infrastructure

Dr Juan P. Hidalgo, Lecturer in Timber and Fire Safety Engineering, School of Civil Engineering, The University of Queensland

Mass timber construction is becoming the emerging norm for modern infrastructure due to the numerous benefits of engineered timber structures. Nevertheless, timber is a combustible material and as such it poses a fire hazard to be explicitly considered in the design of the building. Based on his previous research at the University of Edinburgh and the ongoing research activities at the ARC Future Timber Hub at The University of Queensland (UQ), Dr Juan P. Hidalgo will present an overview of the fire safety design challenges of mass timber construction. He will highlight the importance of a performance-based design framework that enables the fire-safe use of timber in mid- and high-rise buildings. As a lecturer in the Centre for Future Timber Structures at UQ, Juan has developed a new timber course for the Civil Engineering programme and, along with the Fire Safety Engineering Research Group, is currently leading research on fire-safe timber structures and the fire safety of façades.

3.15 **Afternoon Tea**

3.30 **Session 3**

Guide for Wood Construction Systems

Associate Professor Gregory Nolan, School of Architecture and Design, University of Tasmania

This presentation launches WoodSolutions' new Design Guide #46 on Wood Construction Systems. Designed to assist practicing structural engineers and other building design professionals to confidently develop conceptual structural designs for timber-rich buildings and structures, the guide takes a whole-of-process approach to the selection of timber structural systems. It explores proven structural systems, connections and material options, and design approaches before providing a concise reference on the technical aspects of wood and timber products. Associate Professor Gregory Nolan will provide an overview of the guide and the described construction systems before demonstrating how the guide can be used in developing an initial conceptual structural design for a timber. Two worked examples of multistorey timber solutions will be introduced.

Since 1994, Greg has been involved with research, development and extension aimed at improving both the use of wood and timber products in sustainable building, and the recovery of wood products from the available resource. In this, he works closely with the building design professions and the timber production industry. He has published widely on these topics through books, articles, manuals, guides and conference publications.

While a registered architect, Greg has closely with structural engineers in his 20 years of experience in designing with wood, and has inspected and documented numerous heritage and contemporary timber-rich structures.

4.15 **Session 4**

Engineered Timber Products: Correct Installation for Long Term Durability

Colin MacKenzie, Technical Consultant, Timber Queensland

Increasing trends in the use of EWP's in weather exposed applications requires consideration not only of the inherent durability properties of the timber and connections but also meticulous consideration of detailing, finishing and programmed maintenance to achieve satisfactory long-term performance. Colin will present a number of case studies that will explore some of the key considerations in more detail.

Colin has been active in timber engineering and design for the past 30 years, especially in durability design and the development of Australian Standards and Building Codes.

4.45 **Session 4**

National Centre for Timber Durability and Design Life – Research Directions

Professor Jeff Morrell, Director, National Centre for Timber Durability and Design Life

Jeff has recently joined the National Centre for Timber Durability and Design Life taking up this position from his role as a Distinguished University Professor in the Department of Wood Science & Engineering at Oregon State University.

The Centre, which is based at the University of the Sunshine Coast, is a partnership between industry, academia and government designed to put Australia at the forefront of international best practice. It aims to use evidence-based data, systems and tools to underpin consumer confidence in the performance of timber products. In particular, the goal over the next five years is to develop a predictive, evidence-based model to enable architects and building specifiers to more easily choose the right timber for the right task, accurately forecasting structural performance and design life.

Jeff is a former president of the American Wood Protection Association (AWPA) and the International Research Group on Wood Protection.

5.00 **Conclusion**

Registration

Please complete this registration and email sarah@timberqueensland.com.au or register online at www.timberqueensland.com.au/events before 5 October 2018.

Date: Wednesday 11 October 2018 (1.00 – 5.00pm)

Venue: Darcey Mitchell Room, Broncos Leagues Club, 98 Fulcher Rd, Red Hill

Name:

Profession:

Company:

Address:

Telephone:

Email:

Dietary Requirements:

Please note: WoodSolutions reserves the right to cancel this event and/or change the program and speakers without notice. Registrants may be contacted by WoodSolutions about future seminars and events.

Resourced by Forest and Wood Products Australia Ltd (FWPA) and the Australian Government, WoodSolutions is an industry initiative designed to provide information on timber and wood products to individuals and companies involved in building design and construction. WoodSolutions is a collaborative effort between FWPA members and forest and wood product levy partners and is supported by timber industry peak bodies and technical associations.