

CLT STRUCTURES

23-24 MAY

02-03 DECEMBER

In the last decade, wooden constructions have shown a strong expansion, thanks to technological improvements, in particular related to connection systems, and thanks to intrinsic qualities of the material such as excellent structural performance, good thermal insulation, workability, flexibility of use and sustainability. In this scenario Cross Laminated Timber (CLT) buildings have undoubtedly thrived. The course offers a rich program that analyzes the crucial problems of the new CLT constructions focusing on structural, durability and acoustic design of the buildings. Both CLT and Light Timber Frame technologies are studied, example of connections and technical details designed to enhance the acoustic and air tightness characteristic of the structures are presented.

SPEAKERS

Prof. Eng. PHD Maurizio
Follesa

Eng. PHD Andrea Polastri

Eng. PHD Daniele Casagrande

Eng. Franco Moar

Eng. Paola Brugnara

INFORMATION

cost per person 670 € *

course code: RBCAPRING

**course & 3 days accommodations, 2 lunches and 3 dinners, transfer to and from the hotel and company (transfer to and from the airport/railway station is not included)*

DAY 01

08.30 | 08.45 *presentation of the course*

08.45 | **CLT TIMBER HOUSE**
10.30 | Material | Production | Principle for calculation this in case of vertical and horizontal load

10.30 | 10.45 *coffe break*

10.45 | **TIMBER FRAME WOOD HOUSE**
11.30 | Material | Principle for calculation this in case of vertical and horizontal load

11.30 | **CLT TIMBER HOUSE**
12.30 | Seismic behaviour and research

12.30 | 13.30 *lunch*

13.30 | **DESIGN OF TIMBER BUILDINGS UNDER HORIZONTAL LOADS**
14.30 | Wind and earthquake

14.30 | **DYNAMIC ANALYSIS OF TIMBER BUILDINGS BY MEANS OF FEM**
16.00 | **MODELS**

16.00 | 16.15 *coffe break*

16.15 | **CALCULATION OF CONNECTORS FOR CLT STRUCTURES**
18.00 | Screws and steel plates

DAY 02

08.30 | **AIR TIGHTNESS OF BUILDINGS, SEALING AND DURABILITY**
09.30 | Principles of technical physics and thermo-hygrometer analysis of a timber construction | Behaviour of the membranes and correct field of use | Care of the detail

09.30 | **ACOUSTIC IN TIMBER CONSTRUCTION**
10.45 | Research activity | Parameters | Standard

10.45 | 11.00 *coffe break*

11.00 | **PRACTICAL APPLICATION**
12.30 | Different types of hidden joints, screws and sealants

12.30 | 13.45 *lunch*

13.45 | **TOUR OF ROTHOBLAAS**
14.30 | Explanatory/architectural tour of the company

14.30 | **CONNECTION SYSTEMS FOR CLT STRUCTURES MULTI-STOREY**
15.45 | **BUILDINGS**

15.45 | 16.00 *coffe break*

16.00 | **EXPERIMENTAL RESEARCH ON TRADITIONAL CONNECTORS**
17.00 | **(CONNECTION SYSTEMS AND WHOLE WALL SYSTEMS)**
RESEARCH ON AN INNOVATIVE CONNECTION SYSTEM X-RAD

17.00 *presentation of the certificates / end of the course*