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 analyze 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. Alice Speranza

**INFORMATION**

- cost per person from: 590 € *
- 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 MODELS
16.00  |  *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 | 10.45  |  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 | 15.45 |  CONNECTION SYSTEMS FOR CLT STRUCTURES MULTI-STOREY BUILDINGS

15.45 | 16.00 |  *coffe break*

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

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