Universität Stuttgart
Institute of Construction Materials (IWB)
Materials Testing Institute (MPA)

Engineered Wood Products

Description

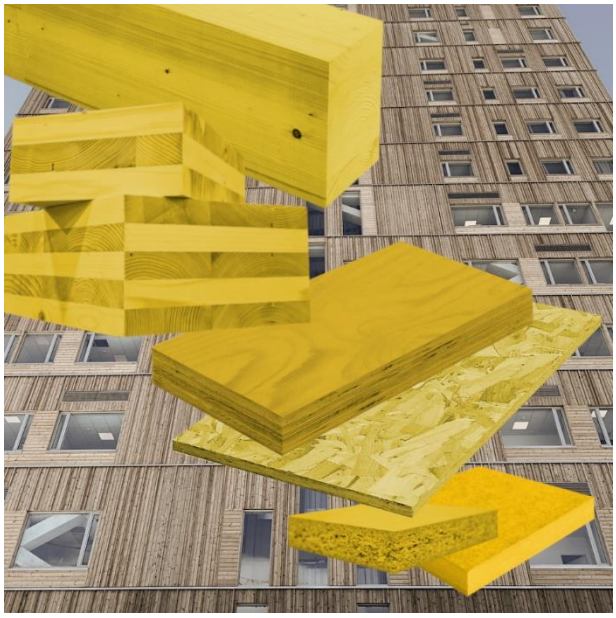
Contact person:
Jun.-Prof. Dr. Philippe Grönquist
Pfaffenwaldring 4b, 70569 Stuttgart
philippe.groenquist@iwb.uni-stuttgart.de

ECTS points: 3
Lecture language: English

Target study programmes:

- M.Sc. Civil Engineering
- M.Sc. Real Estate Engineering and Management
- M.Sc. Computational Mechanics of Materials and Structures
- M.Sc. Integrative Technologies & Architectural Design Research

Wood represents one of mankind's most important materials. Currently, it's significance is increasing thanks benefits such as its inherent sustainable nature as a construction material. This module aims at providing basic knowledge on the properties and use of engineered wood products (EWP). A focus will be laid on the relationships between processing, structure, and resulting mechanical and physical properties with respect to their importance in timber engineering. Specific knowledge will be gained about the different individual used EWPs in timber construction. In addition, insight in current research in the field of wood science and technology will be provided. A main learning target is to establish an awareness of a material-appropriate usage of wood and EWPs in construction, and to be able to critically reflect thereupon. Having previously visited the course "**Wood Physics**" is recommended, but not a pre-requisite.



[Image: P. Grönquist, IWB/MPA University of Stuttgart, 2023. Background image source: Voll Arkitekter]

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Lecture plan
Summer semester 2023

Contact person:
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Lecture day: Thursday
Time: 15:45–17:15 pm
Location: PWR 4 – Seminar room 1st floor
Period: 13.04.2023–20.07.2023

Date	Agenda	Lecturer
13.04.2023	Introduction to engineered wood products	P. Grönquist
20.04.2023	Solid timber I: Sorting & grading	G. Dill-Langer (MPA)
27.04.2023	Solid timber II: Processing & application	P. Grönquist
04.05.2023	Glued laminated and Cross laminated timber	P. Grönquist
11.05.2023	Laminated veneer lumber	P. Grönquist
18.05.2023	No lecture (Christi Himmelfahrt)	-
25.05.2023	Strand / Particle / Fiber products	P. Grönquist
01.06.2023	Adhesive technology / Group assignment hand-out	P. Grönquist
08.06.2023	No lecture (Fronleichnam) / Group work on assignment	-
15.06.2023	Durability / Non-destructive testing	P. Grönquist
22.06.2023	No lecture / Group work on assignment	-
29.06.2023	Group assignment discussion / MPA testing hall visit	P. Grönquist
06.07.2023	No lecture	-
13.07.2023	Modified & functional wood materials	S. Koch (ETH Zurich)
20.07.2023	Recap and exam preparation	P. Grönquist