

University of West Hungary

Simonyi Károly Faculty of Engineering, Wood Sciences and Applied Arts



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Basic figures

- Faculty since 1962
- Students ca. 1000
- Researchers / Teachers / Professors ca. 100 person
- Annual budget: ca. 2 Mill. EUR

Organization of the Faculty I

- Institute of Wood Sciences
- Institute of Wood-based Products and Technologies
- Institute of Machining and Mechatronics
- Institute of Architecture
- Institute of Physics and Electronics
- Institute of Applied Mechanics and Structures
- Institute of Applied Arts
- Institute of Business Informatics and Economics

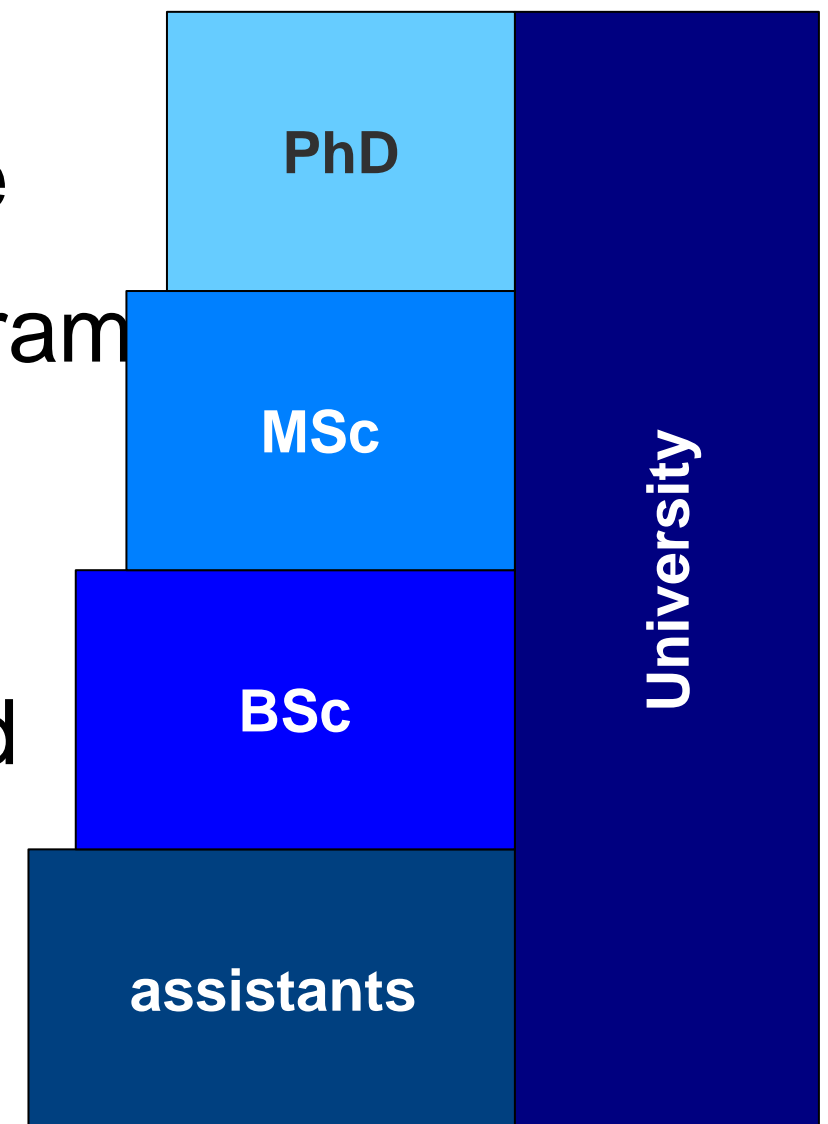
Organization of the faculty II

Supporting and Research units:

- Woodshop
- Natural Resources Research Center
(<http://nrrec.nyme.hu/en/labors/>)
- Innovation Center
- Paper Research Institute (2010 -)
- Accredited Testing Laboratories

Degrees

- Mainly 5-year degrees (MSc) until 2005
- Since 2005: transition to linear structure
- In 2005, 2006, 2007: new BSc/BA programs in different fields
- From 2008: start of MSc/MA programs
- Since 90th: PhD in material science and technology in wide sense (e.g. IT and management)
- DLA in arts: under preparation





Technical sciences



Wood Industrial Engineering
(*BSc, MSc and English language MSc*) -
unique in Hungary

Industrial Design Engineering
(*BSc and MSc*)

Mechatronics Engineering
(*BSc in Zalaegerszeg*)

Light Industrial Engineering (MSc)

Wood Production Manager (AS)

Mechatronics Engineer Assistant (AS)



IT sciences

Business Information Technology
(*BSc*)

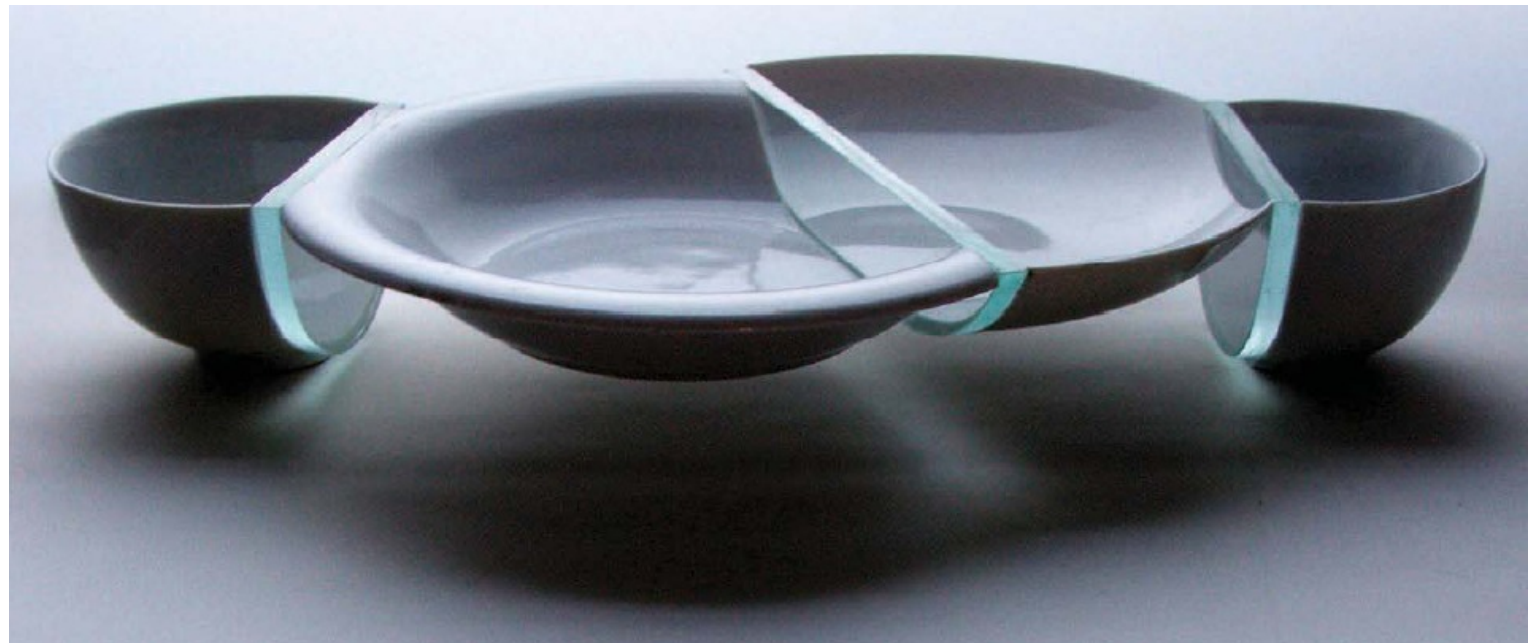
Business Information Technology
(*MSc*)





Applied Art

Architectural Arts (*BA, MA*)
Product Design (*BA, MA*)
Graphic Design (*BA, MA*)



NRRC on Faculty

**New 4000 m² laboratory building with 3,6
M Euro new scientific equipment -
gives more possibilities
> 70 laboratories**



**Aims:
Education
R + D + I
Accredited tests**



R+D+I on FWS

Innovation for industry:

- > 40 companies/year
- ~360 000 Euro/year

R+D (EU or governmental):

- 4 - 8 projects/year
- 250 000 - 400 000 Euro/year

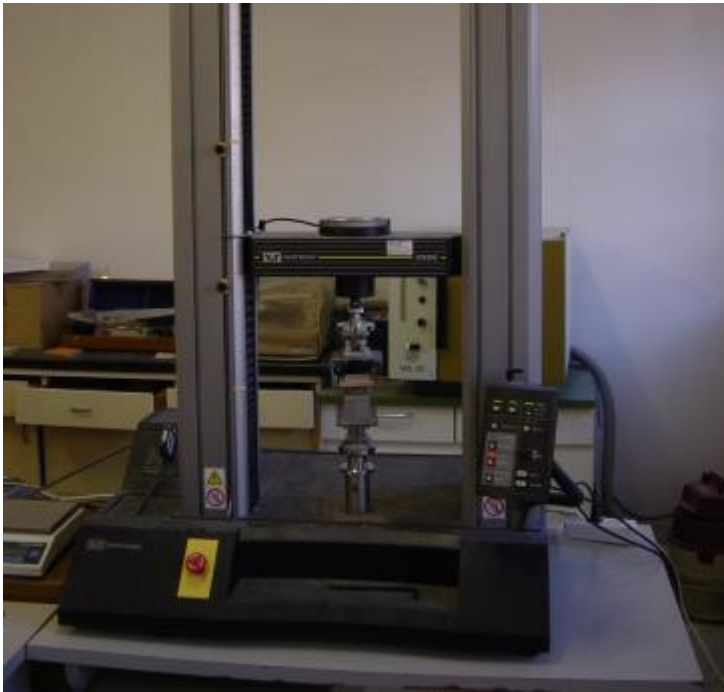


Accredited tests

- **physical and mechanical tests (wood and wood based materials, metals, polymers)**
- **wood products (furnitures, windows, doors, floorings)**
- **work place safety, noise, emissions**
- **wooden structures**
- **wood durability and protection**
- **paper and paper products**
- **environmental tests**
- **formaldehyde emission**
- **fire performance of building materials**
- **etc.**



Material testing



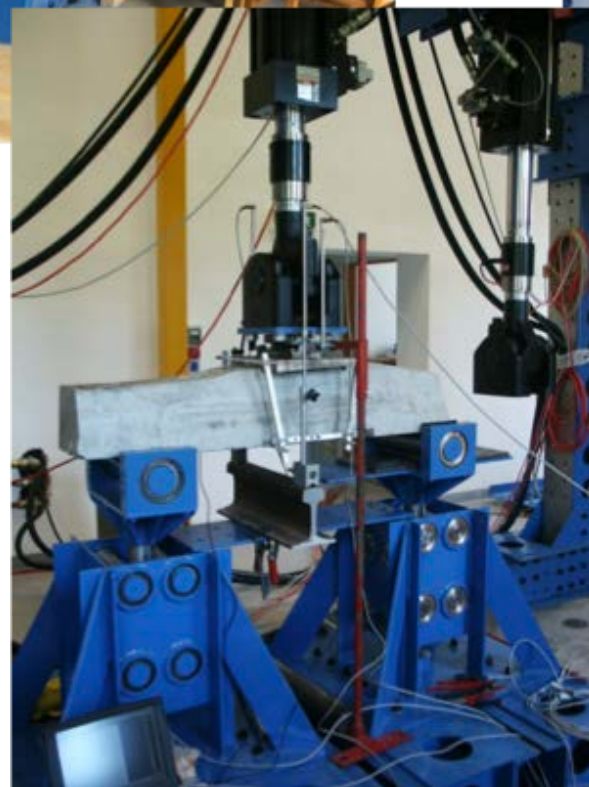
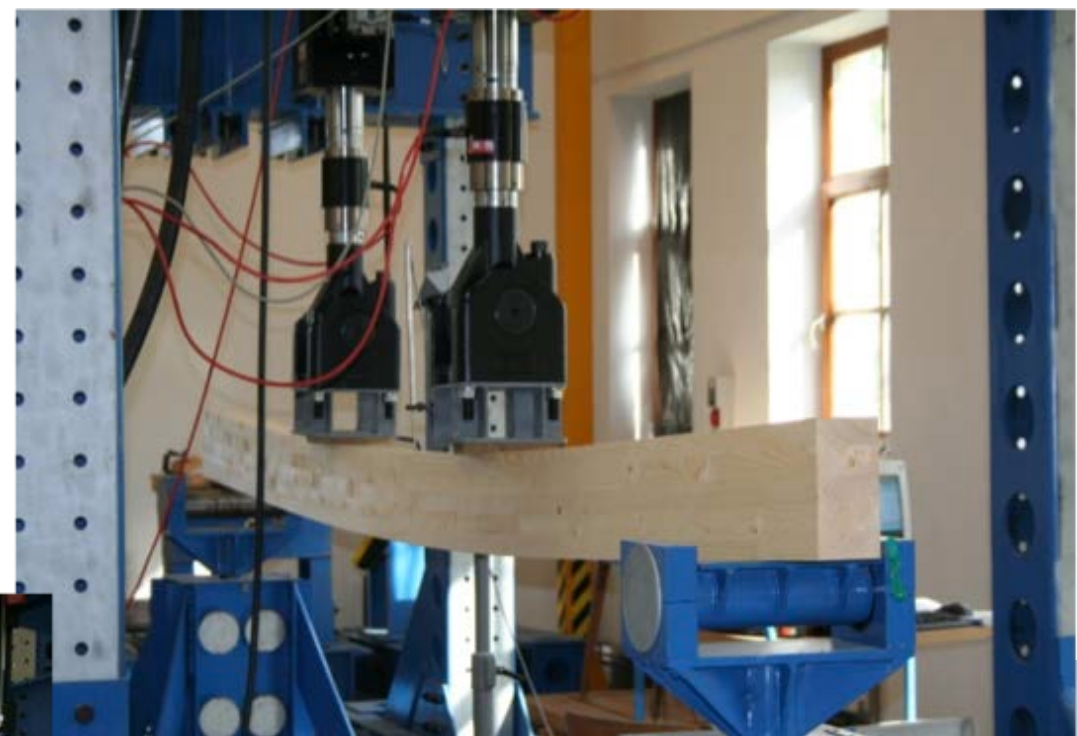
Wood based products



Work place emissions and safety



Structures

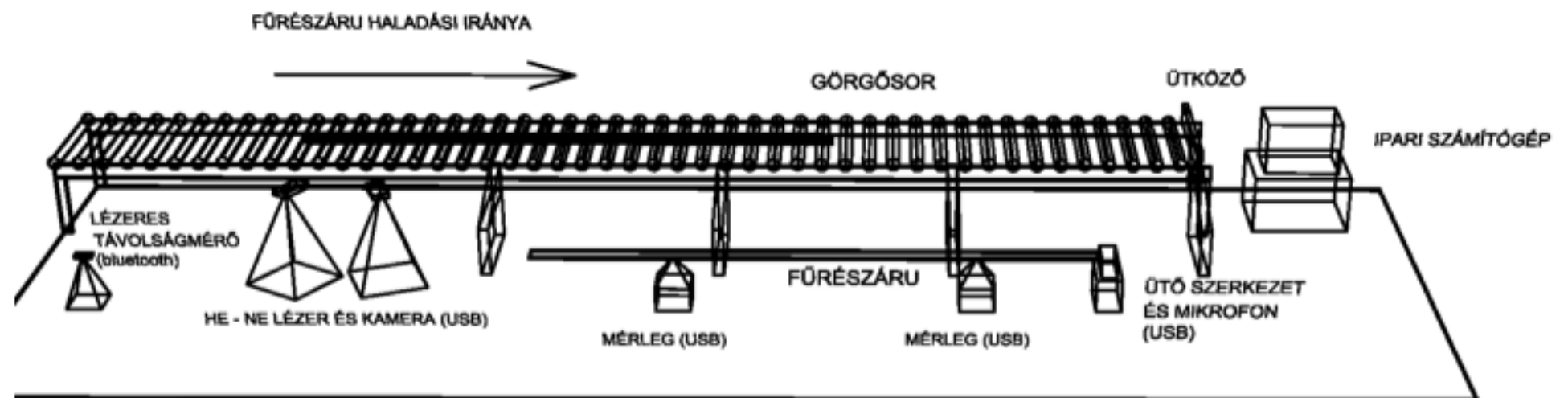


Durability, biodegradation



Structural wood grading

Eurocode 5



Paper testing and environmental issues



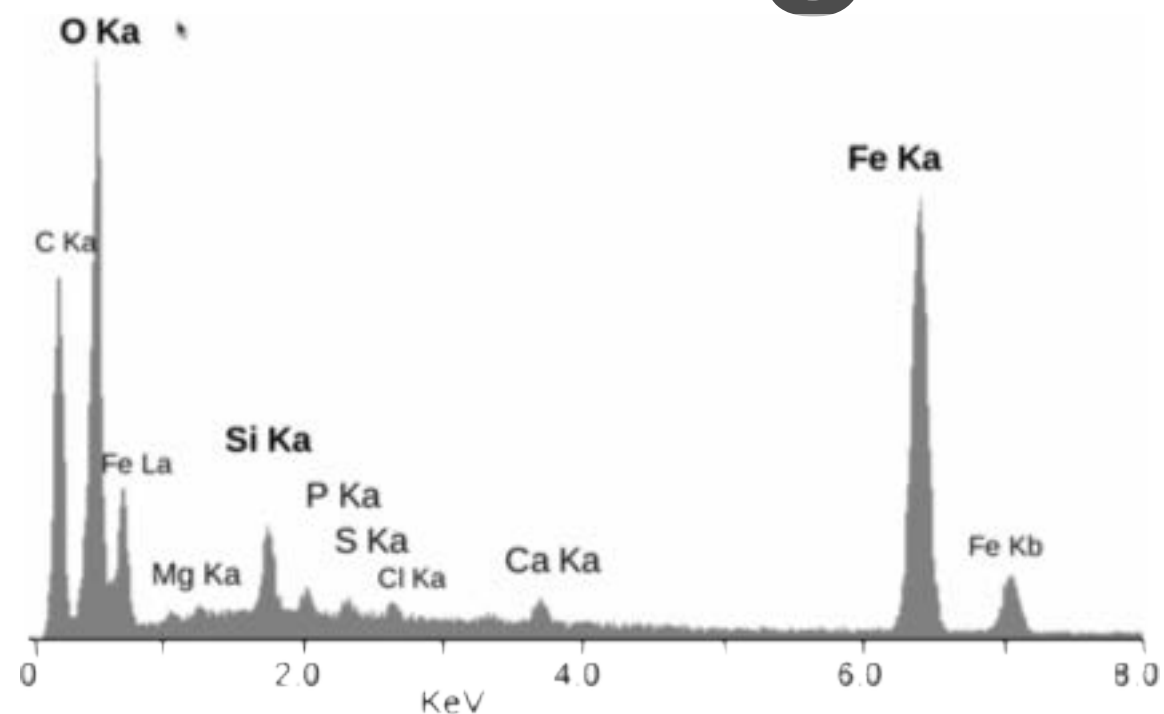
Fire performance of building materials



Formaldehyde testing



Surface testing

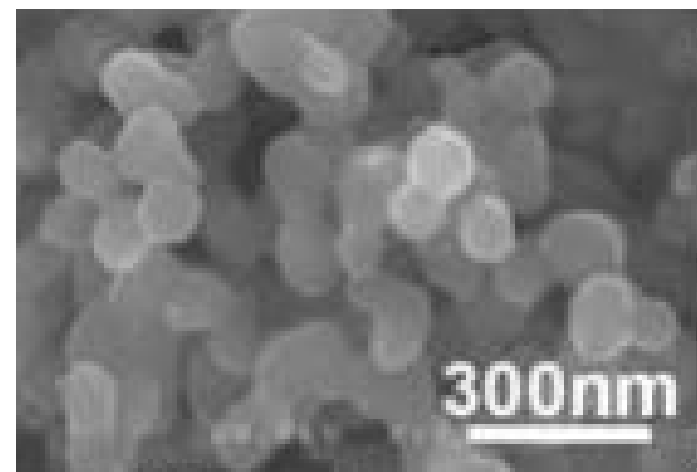


IKEA standards

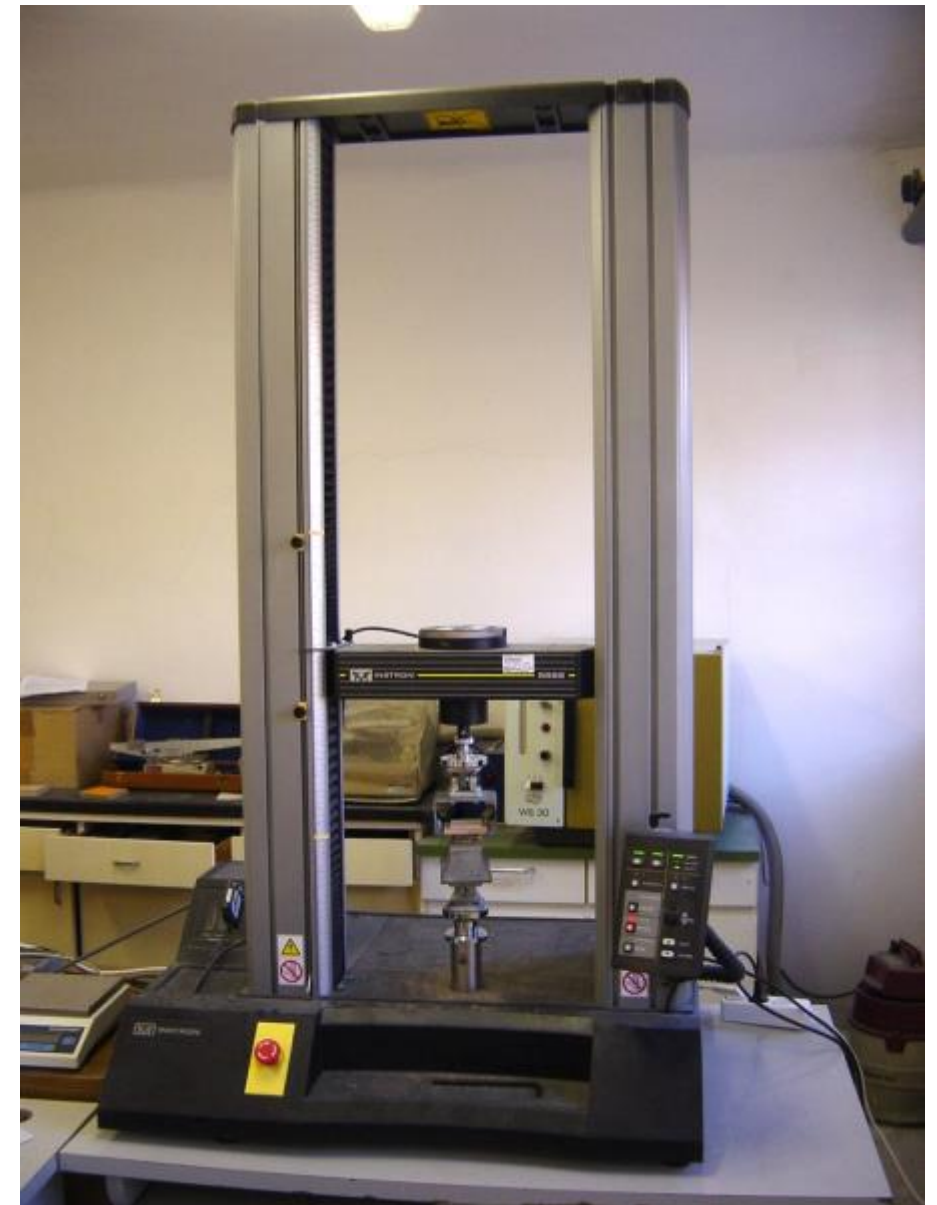
EDX microanalytical quantification and qualification of surfaces

Wood preservatives

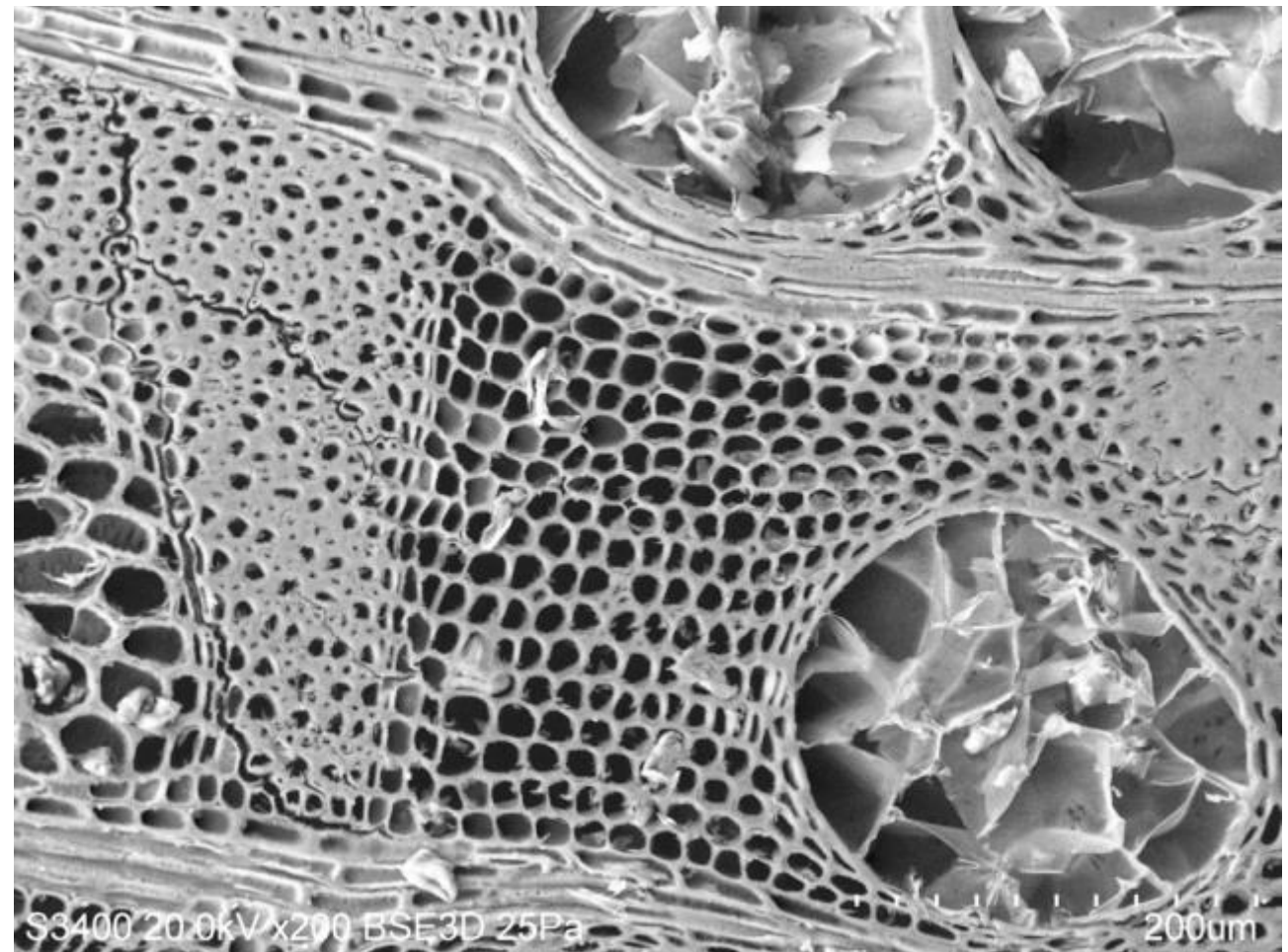
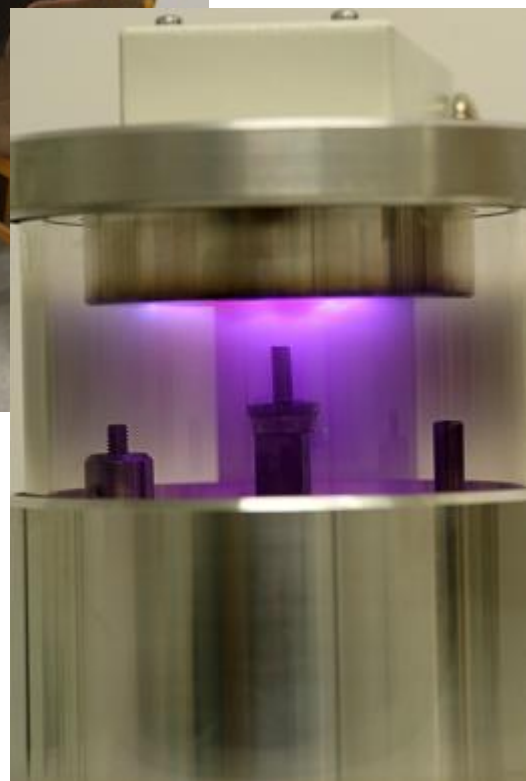
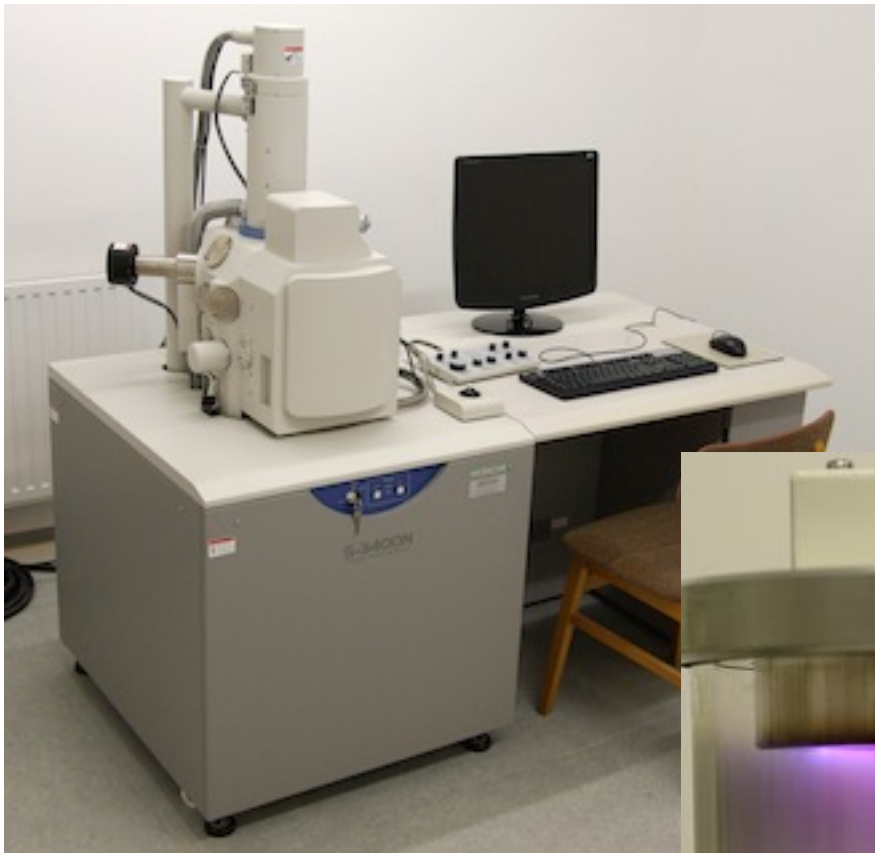
Durability
Preservatives
Detection



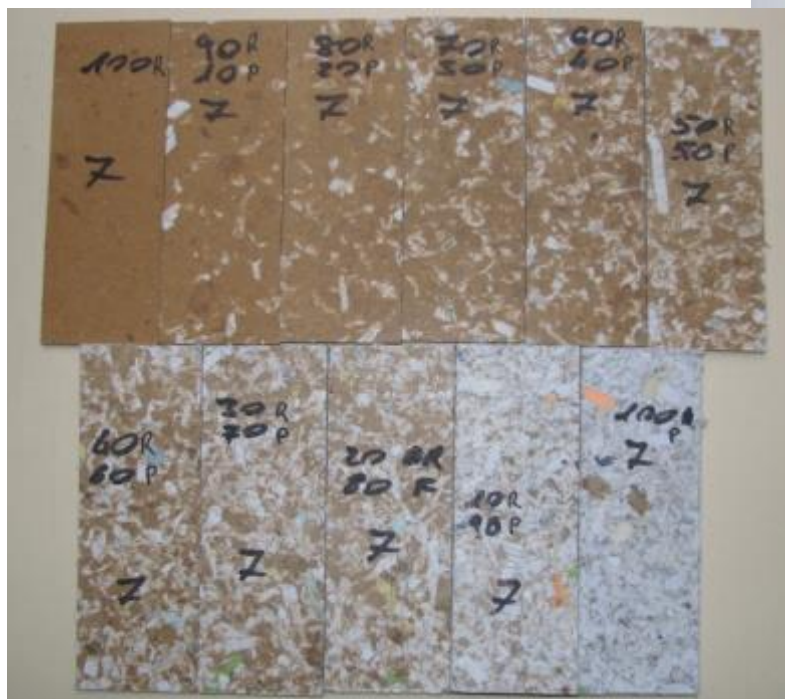
Material testing lab



Wood anatomy lab



Composite lab



Polymer technics lab



Energetics lab



Wood Quality



Plantation timber



Energetic utilization of wood



Wood Drying, Modification, Weathering properties



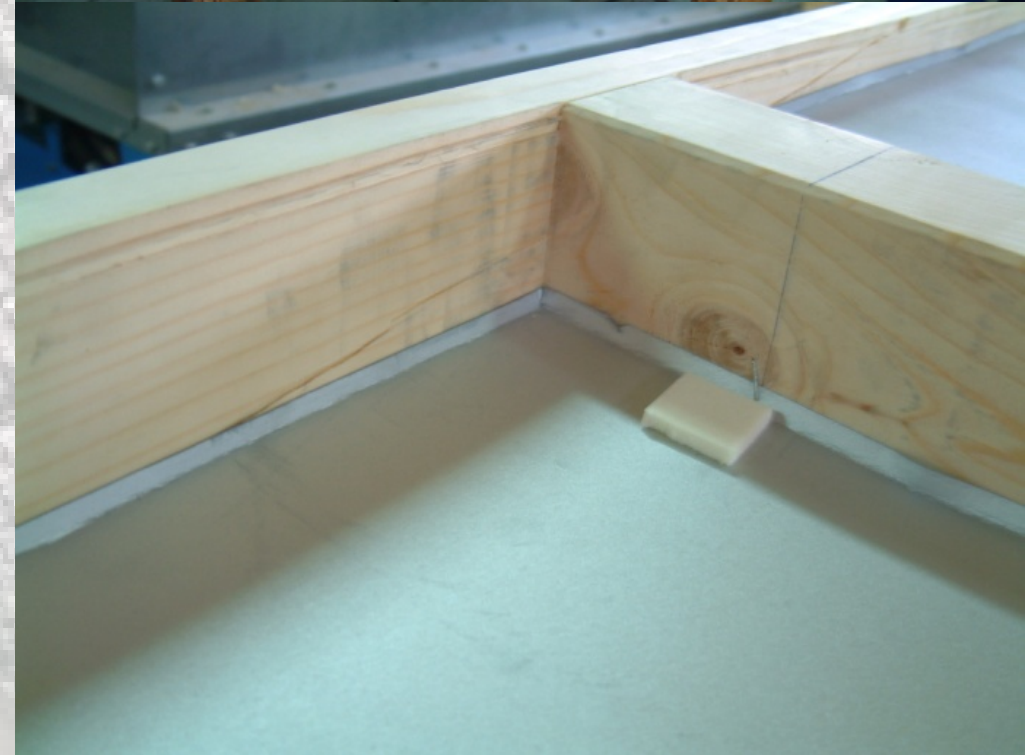
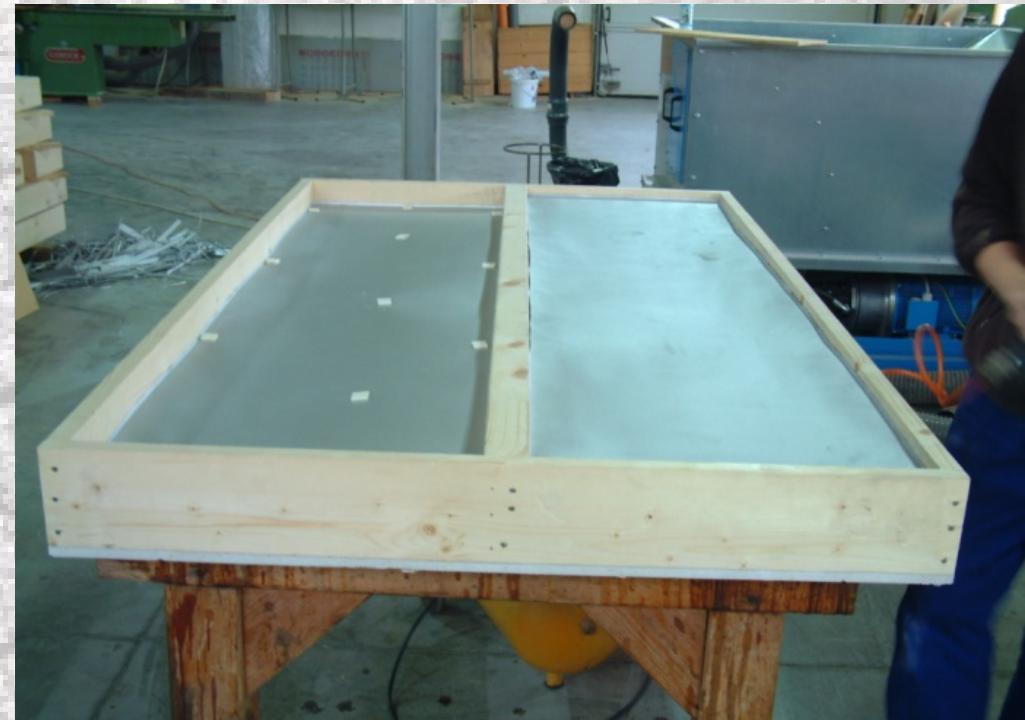
Improving energy efficiency of buildings



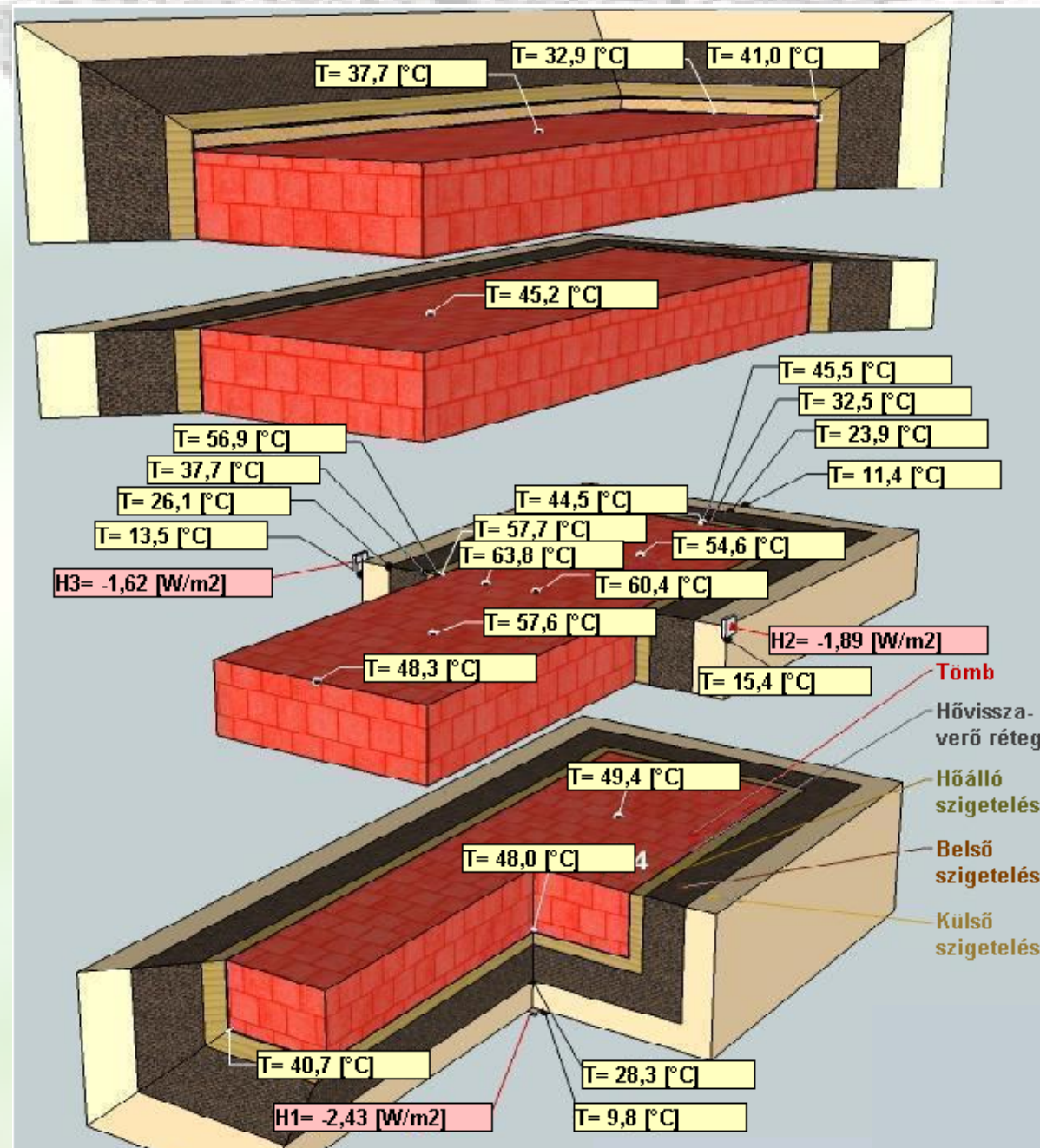
MIRRORPANEL heat insulation system



$$\lambda = 0,027 \text{ W/(mK)}$$



Seasonal heat container



References

3B

Dunapack

KEFAG

General Motors

TAEAG

Kronospan-MOFA

Velux

ERTI

Swedwood

Falco

Flextronix

Knauf Insulation

Zala Volán

Hartmann Bábolna

KAEG

BEFAG

LUK

Modern wood architecture in protected landscape



Modern wood architecture in protected landscape



Project Ideas - Special interest - Competences

- Non-destructive Testing of wood
- Nano-technology in Wood and Paper products
- Data management, data mining, software development for Forestry and wood sector
- Interior design, Industrial design
- Wood Plastic Composites (WPC), Inorganic bonded composites
- Wood anatomy, Wood protection
- Plantation wood species
- Energetic utilization of wood, Energy plantations
- Energy efficiency of buildings
- Paper and cellulose technologies
- Waste management and recycling
- Mechanics of wood machining
- Work safety
- Energy consumption of wood factories
- Energy-saving extraction systems
- Energy Demand of Briquetting and Pelleting of Wood



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SPONSORS

The University of West Hungary, the BOKU University and the International Academy of Wood Science are pleased to announce the call for papers for the conference „Eco-efficient Resource Wood”.

Eco-efficient Resource Wood with special focus on hardwoods

Sopron & Vienna, 2014. (14) 15-18th September

Discover two Cities in the heart of Europe, and meet scientists, young researchers from all over the world, by accepting the invitation of the three organizers!

Please, read the [call for details](#).

The conference will feature key-note speakers, technical and poster presentations on various topics with special emphasis on hardwoods.

**143 DAYS
until the conference**

DEADLINES

Call for papers

Short abstract (250 words)

Due date is: **25-05-2014**

[Linked template for short abstract](#)

Notification about acceptance

Due date is **20-06-2014**.

Deadline for sending in the extended abstracts

PARTNERS



The conference will feature key-note speakers, technical and poster presentations on various topics with special emphasis on hardwoods, including:

1. Structure and properties
2. Resources assessment
3. Growing hardwoods
4. Plantation wood
5. Appearance and surface properties
6. Dimensional stability
7. Regulation of Timber Trade
8. Quality and Sorting
9. Drying and modification
10. Machining & Manufacturing
11. Durability, Biodegradation and Preservation
12. Hardwood in composite and engineered materials
13. Product design and marketing
14. Non-destructive evaluation

The deadline for submitting abstracts is the 25th of May 2014.

We hope to see you in Sopron & Vienna

Regards,

Robert Nemeth & Alfred Teischinger & Lennart Salmén

Deadline for "Early bird" registration (reduced fee)

Deadline is **15-07-2014**.

Reviewed extended abstracts sent back to the author

Due date is **25-07-2014**.

Extended abstracts corrected by the authors and sent back to the editor

Deadline is **20-08-2014**.

Closing of registration No refund of fee after this date!

01-09-2014

(Before 01.09 refund of 85% of fee.)

Programme

The final programme will be announced later.

Tentative overview:

17:00	Welcome Party & Registration
Monday, 15 September 2014	
SOPRON	
08:00	Registration
09:00	Academy Lecture (Wegener?)
09:45	Keynote speech
10:15	Session 1A Lectures (2)
11:00	Coffe Break
11:30	Session 1B Lectures (4)
12:50	Lunch
14:00	Poster Flash Presentations (15)
15:00	Session 2 Lectures (4)
16:20	Coffee Break
16:50	Session 3 Lectures (3)
19:00	Conference Dinner
Tuesday, 16 September 2014	
SOPRON	
Menna	
09:00	Laboratory Vist NRRC & Ligneum & Testing Lab Cons
12:00	Lunch
13:00	Technical / Cultural Vist to City
15:30	Bus Transfer to Menna

16:00	Bus transfer to Vienna
Wednesday, 17 September 2014	
Menna	
09:00	Session 5 Lectures (4)
10:20	Coffe Break
11:00	Session 6 Lectures (4)
12:20	Lunch
13:20	Academy PhD Presentation
14:00	Poster Flash Presentations (15)
15:00	Coffe Break
15:30	Session 7 Lectures (5)
19:00	Evening Reception
Thursday, 18 September 2014	
Menna	
09:00	Technical tour in Austria
Displaying events until 15/8. Look for more	
Google Calendar	



Come to Sopron and visit us!



<http://www.skk.nyme.hu>