



**LAW
&**



Hardwood Conference

Vienna - Sopron

September 14-18, 2014.

Program

**„Eco-efficient Resource Wood
with special focus on hardwoods
Sopron & Vienna, 2014. (14) 15-18th September**

<http://services.woodscience.hu/>

In co-operation of



University of West Hungary,
Simonyi Károly Faculty, Sopron



University of Natural Resources and Applied Life
Sciences, Vienna
Department of Material Sciences and Process
Engineering



Overview of the Program

SOPRON
14th September 2014
Sunday

19:00 Welcome Party & Registration

SOPRON
15th September 2014
Monday

8:00-9:00 Registration

9:00-9:15 Welcome speech

9:15-9:45 Keynote speech

9:45-10:15 Academy Lecture

10:15-11:00 Poster flash presentations I (9)

11:00-11:30 Coffee Break + Poster Show

11:30-13:00 Session I Structure & Properties (4)

13:00-14:00 Lunch

14:00-15:15 Session II Structure & Properties (5)

15:15-15:45 Coffee Break

15:45-16:45 Session III Structure & Properties (4)

19:00 - Gala dinner

SOPRON
16th September 2014
Tuesday Morning

9:00-11:00 Laboratory Visit NRRC & Ligneum & Testing Lab for Building Components, Discussions about relevant research topics

11:00-13:00 Guided city tour in Sopron downtown

13:00-14:00 Lunch in Hotel Best Western Pannónia

14:00- Bus transfer to Vienna (Hotels in Centrum)

Vienna
16th September 2014
Tuesday Evening

18:30 – 19:30 Evening reception in Vienna downtown (ceremony hall TU Wien)

Free evening program for the delegates

Vienna
17th September 2014
Wednesday

8:45-9:00 Welcome speech

9:00-10:00 Poster flash presentations II (10)

10:00-10:30 Coffee Break + Poster Show

10:30-12:30 Session IV Industrial applications (7)

12:30-14:00 Lunch

14:00-15:30 Session V Industrial applications (5)

15:30-16:00 Coffee Break

16:00-17:30 Session VI Industrial applications (4)

19:00- Conference dinner

Vienna
18th September 2014
Thursday

9:00- Industrial visit & cultural program in Austria (by Bus), travel ends at airport Schwechat (ca: 17:30h).

Accompanying persons are welcome!

Detailed Program

SOPRON 14th September 2014 Sunday	Location: Jégverem Restaurant http://www.jegverem.hu/en/index
19:00-21:00h	Welcome Party & Registration Registered participants and accompanying persons are welcome for a menu including 2 cup of wine and snack.
SOPRON 15th September 2014 Monday	Location: Best Western Pannónia
8:00-9:00	Registration
9:00-9:15	Welcome speech
9:15-9:45	Keynote speech - Hapla, F. Wood Resource in Europe in the Future
9:45-10:15	Academy Lecture - Militz, H. Wood modification research from a European perspective
10:15-11:00	Poster flash presentations I (9) Chair: Rastislav Lagana Benke, A., Komán, Sz., Fehér, S., Borovics, A., Rédei, K., Fűhrer, E. Investigation of carbon sequestration on different fast growing tree species Gorbacheva, G.A., Ugolev, B. N., Olkhov Yu. A., 2, Sanaev, V.G., Belkovskiy, S.Yu. Transformation of wood structure at shape memory effect Hofmann, T., Nebehaj, E., Eső, I., Fehér, S., Albert, L., Stefanovits-Bányai, E. Comparative analysis of antioxidant extractives in the bark tissues of selected wood species Horváth, P. G., Antal, M. R., Domljan D. Reborn materials - Recycled products reused in furniture design – students' workshop Komán, Sz., Fehér, S., Benke, A., Borovics A. Variability of the calorific value of hybrid poplars in relation with habitation Lagaña, R., Hrčka, R., Poláček, J Effect of heat treatment on selected properties of oak wood Makk, Á., Bak, M., Hofmann T., Németh, R., Rétfalvi, T. Effect of fungal pretreatment on anaerobe fermentation of bourtrees (Sambucus nigra) Szeles, P., Németh, R. Colour homogenisation of irregularly discoloured Robinia wood by different thermo-hygro treatments Horváth, T., Pásztor, Z. Modelling the effect of orthotropic material properties on heat and moisture transport in case of spruce rafter
11:00-11:30	Coffee Break + Poster Show

11:30-13:00	<p>Session I Structure & Properties (4) Chair: Peter Rademacher</p> <p>Gorišek, Ž., Pervan, S., Trop, M., Straže A. Interplay of density, moisture content and specimen size on static and dynamic determination of stiffness properties of beech wood</p> <p>Baar, J., Nevrly O. Swelling of subfossil oak under different conditions</p> <p>Divos, F. The importance of green wood strength</p> <p>Eichhorn, S., Hofmann, T., Tolvaj, L., Németh, R., Hapla, F. Analysis of phenolic components in Sweet chestnut (<i>Castanea sativa</i> Mill.) heartwood</p>
13:00-14:00	Lunch
14:00-15:15	<p>Session II Structure & Properties (5) Chair: Frantisek Hapla</p> <p>Niemz, P., Clauss, S., Pescatore, C., Michel, F. Physical and mechanical properties of common Ash wood (<i>Fraxinus Exelsior</i> L.)</p> <p>Bazyar, B. Comparing the effects of two heat treatment methods in vacuum on some mechanical properties of Beech wood</p> <p>Sablík, P., Rademacher, P. Varied extract gain of 'Accelerate fexlKA extraction' and influences of different process parameters</p> <p>Schlotzhauer, P., Emmerich, L., Militz, H., Bollmus, S. Machine grain angle determination on six European hardwoods</p> <p>Blohm, J. H., Dujesiefken, D., Schmitt, U. The branch wood of poplar (<i>Populus x canadensis</i> MOENCH): anatomical and histometric characteristics</p>
15:15-15:45	Coffee Break
15:45-16:45	<p>Session III Structure & Properties (4) Chair: Joris Van Acker</p> <p>Jing Ma, Xun Zhang, Feng Xu Revealing the variation of lignin and hemicelluloses microdistribution in poplar cell wall during hydrothermal pretreatment</p> <p>Yamamoto, F., Moungrimuangdee, B. Roles of signal transduction substances in pathological or traumatic heartwood formation in deciduous oak trees</p> <p>Zauer, M., Spickenheuer, A., Heinrich, G., Wagenführ, A. Highly stressed composite materials of small cross-sections of European ash and fibre-reinforced plastics</p> <p>Zauner, M., Ritschel, F., Stampanon, M., Niemz, P. In-situ tensile loading and synchrotron micro-tomography of glued Norway spruce samples</p>
19:00 -	Gala dinner Hotel Pannonia
SOPRON 16th September 2014 Tuesday Morning	Location: LIGNEUM at the Main Campus of the University, Bajcsy-Zs. u. 4.
9:00-11:00	Laboratory Visit NRRC & Ligneum & Testing Lab for Building Components, Discussions about relevant research topics
11:00-13:00	Guided city tour in Sopron downtown
13:00-14:00	Lunch in Hotel Best Western Pannónia
14:00-	Bus transfer to Vienna (Hotels in Centrum)

Vienna
16th September 2014
Tuesday Evening

Location: Cupola hall of TU Wien

18:30 – 19:30

Evening reception in Vienna downtown
Welcome speech by
Prof. Eberhardsteiner (TU Wien)
Prof. Teischinger (BOKU Wien)
Prof. Mang (former president of the Austrian Academy of Science)

Free evening program for the participants

Location: Ceremony hall of TU Wien

Vienna
17th September 2014
Wednesday

Location: Ceremony hall of TU Wien

8:45-9:00

Welcome speech

9:00-10:00

Poster flash presentations II (10) **Chair: Marketta Sipi**

Ballerini, A., Núñez, M., Reyes, N

Adhesives formulated with natural sustainable components for wood boards

Domljan, D., Župčić, I., Grbac, I., Uremović, M.

Design of wood products using the method of welding wood

Gyuricsek, T., Horváth, N., Németh, R.

Effect of heat treatments on selected properties of Tree-of-Heaven (*Ailanthus altissima*)

Olarescu, C. M., Campean, M., Olarescu A.

Colour change and shape stability of open-air exposed solid wood panels made from heat-treated lime wood strips

Vilpponen, E., Komán, Sz., Bejő, L.

Investigating the bending properties of hardwood reinforced poplar LVL

Wang Pei, Huang Siwei, Zhang Rui, Zhou Dingguo

A preliminary study on dielectric properties of Poplar and Wood-based Panel

Wanschura, R., Windeisen, E., Richter, K

Analysis of extractives of tropical hardwoods and benefits for the surface treatment

Yang Zhang, Dingguo Zhou

Effect of Compressive and Impregnating Resin Treatment on the Properties of Poplar Wood

Lagaña, R., Kúdela, J.

Determination of coating stresses in a system wood–solid coating subjected to moisture changes

Teischinger, A., Gronalt, M., Kühle S.

Modelling the Hardwood Chain

10:00-10:30

Coffee Break + Poster visit

10:30-12:30

Session IV Industrial applications (7) **Chair: Uwe Schmitt**

Buddenberg, H., Buddenberg, P. A., Meyer, R., Richter, K.,
Improving quality and yield of rotary peeled beech veneers for plywood production

Denzler, S., Zscheile, M.

The strengths and weaknesses of load bearing joints in beech wood applications

Dworak, S., Riegler, M., Hansmann, C., Müller, U.

Potential of computer tomography in sawmills – value optimization for processing high grade logs

Ehmcke, G., Pilgård, A., Koch, G., Richter, K

A method for topochemical investigation of furfurylated maple

Evans, R.

Imaging Hardwoods with SilviScan

Grabner, M., Schickhofer, G.

Ultra High Performance Plywood (UHPP) -

A Feasibility Study on Veneer-based I-beams

Grüll, G., Svane, P.

European Conventions for Measurement of Dry Film Thickness of Coatings on Coarse Porous Hardwood Species

12:30-14:00

Lunch + Poster visit

14:00-15:30

Session V Industrial applications (5) **Chair: Klaus Richter**

Krenke, T., Frybort, S., Müller, U.

3D-cutting force analysis of hardwoods compared to softwoods

Németh, R., Fehér, S., Molnár, S.,

Utilisation of Robinia Wood - properties, products, resources

Páztory, Z., Rébék-Nagy, P.

Comparison study of poplar and spruce light frame panels

compression and shearing strength of panel

Rademacher, P., Meier, D., Hofmann, T., Pařil, P., Baar, J.,

Sablík, P., Āermák, P., Paschova, Z., Rousek, R.

Material use of plantation wood for higher value utilization after wood modification with renewable modification agents

Rikala, J., Sipi, M.

Curly birch – a peculiarity in the Finnish forests

15:30-16:00

Coffee Break

16:00-17:30

Session VI Industrial applications (4) **Chair: Zeljko Gorisek**

Hüttler, B., Teischinger, A., Gronalt, M.

Simulation of continuous drying process including different technologies

Tabarsa, T.

Technical report of Paulownia Fortunei planted In Iran

Van Acker, J., Defoirdt, N., Van den Bulcke, J., De Boever, L.,

Vansteenkiste, D.

Industrial applications for poplars based on selection and breeding using traits related to both optimized properties for material and energetic usage

Weigl, M., Haider, A., Pichler, W., Steiner, M., Pain, M., Götzl,

R., Schlapschy, J., Jörg, K.

Experience in hardwood utilisation for solid biofuels with focus on the reduction of ash content

19:00-

Conference dinner

Vienna

18th September 2014

Thursday

Location: Wachau Abbey, Forest

9:00-

Industrial visit & cultural program in Austria (by Bus), travel ends at airport Schwechat (ca: 17:30h).

The excursion will also comprise a short walk into the forest (ca. 1 hour). Please take the proper outfit - depending on the weather situation - with you.

Accompanying persons are welcome!

For more information (detailed program, registration form and history of the event) please visit <http://services.woodscience.hu/>, or send an email to robert.nemeth@skk.nyme.hu

Guarantees of the Conference

Scientific Committee

Prof. Dr. Dr. h.c. Marian Babiak	TU Zvolen
Prof. Dr. Dr. h.c. František Hapla	Georg-August Universität Göttingen
Prof. Dr. Dr. h.c. Niemz Peter	ETH Zürich
Prof. Dr. Željko Gorišek	University of Ljubljana
Prof. Dr. André Wagenfuehr	TU Dresden
Prof. Dr. Marketta Sipi	University of Helsinki
Prof. Dr. Joris Van Acker	Ghent University
Prof. Dr. Gerald Koch	Thünen-Institut, Hamburg
Prof. Dr. Julia Mihailova	University of Forestry-Sofia
Asst. Prof. Wladyslaw Strykowski	Wood Technology Institute, Poznan
Prof. Dr. Dr. h.c. Sándor Molnár	University of West Hungary, Sopron
Prof. Dr. Josef Eberhardsteiner	TU Wien

Organizing Committee

Prof. Dr. Dr. h.c. Alfred Teischinger	BOKU University, Vienna
Prof. Dr. Róbert Németh	University of West Hungary, Sopron
Prof. Dr. Dr. h.c. Uwe Schmitt	IAWS, President
Dr. Zoltán Pásztor	University of West Hungary, Sopron
Prof. Dr. Lennart Salmén	IAWS, Past-President
Prof. Dr. Howard Rosen	IAWS, Treasurer
Prof. Dr. Frank Beall	IAWS, Past-President
Prof. Dr. Robert Evans	IAWS, Vice-President
Prof. Dr. Holger Militz	IAWS, Chair Academy Board

Web services

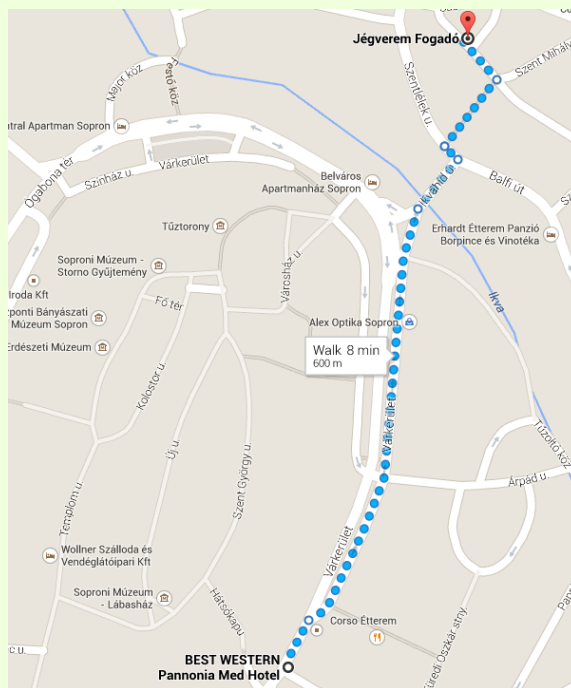
Dr. Dénes Varga	ERFARET Non-profit Ltd, Sopron
Péter Farkas	ERFARET Non-profit Ltd, Sopron

Additional Conference program - Sopron

Welcome evening & Registration in Jégverem Inn 14th September 7-9 pm.

The IAWS – HARWOOD Conference 2014 starts in Sopron with a Welcome evening in a typical Hungarian restaurant at 14th September, on Sunday evening from 6-9 p.m. in the Jégverem restaurant.
(<http://www.jegverem.hu/en/index>)

Jégverem Inn is built on the former city's ice-pit. It has a very cozy style and it is famous for the typical Hungarian menu, big portions, and for the red & white checkered table cloth. Registered participants and accompanying persons are welcome for a menu including 2 cup of wine and snack.



Conference tour for all participants

On 16th September 11 am-1 pm.

A guided city tour in downtown of Sopron, with visiting the fire -watchtower & trying of Sopron's wines

Sopron is *the richest Hungarian town regarding the number of scheduled monuments right after the capital Budapest*. Its sights are ranging from ancient Roman ones to those commemorating outstanding events of very recent times, such as the *famous border breakthrough of 1989*, leading to the pulling down of the „Iron Curtain” dividing Europe.

On the curving old streets hiding in the shade of the Fire-watchtower – the well-known symbol of Sopron – numerous outstanding monuments and hidden treasures are awaiting visitors.



Fire-watchtower, where we could climb, to enjoy the view...

It is worth to see Sopron downtown. There are several places to see, where was the main square of Roman times of Scarbantia, where lived Joseph Haydn, and where gave his first concert Ferenc Liszt.

You are welcome to join Sopron on a pleasant downtown sightseeing tour; during we will discover the not easy-to-find sights, even the most beautiful court yards and the most hidden passages. Before the lunch a short visit to a traditional vine cellar is organized.

Welcome to the Ladies Program - Sopron

/special registration needed: "Additional conference programme for an accompanying person"/

Monday 15th of September 9.30 - 14.00

Day 1. Unique Hungarian handcraft &

We are going to visit a handcraft club. Besides exploring the beautiful embroideries and tissues we will receive information about the various types of handcrafts that are typical for each region in Hungary.



Hungaricum is the label we use for typical Hungarian products.

We are going to visit a cozy Hungarian delicate shop, there we are going to receive information about famous Tokaj wines and you will have the opportunity to taste genuine Hungarian salami. We will also be introduced to various paprika delicatessens and goose livers.

Then we will go in a restaurant and it will be show you **how to make** a proper **Hungarian gulyas soup**. You will have the opportunity to eat the gulyas soup and typical Hungarian pancake, what's going to be prepared by you.

This is something you just have to taste while you are in Hungary!

Tuesday 16th of September 9.00 – 1 p.m.

Day 2 Visit the „ Little Versailles”, where Haydn was composing for 30 years

We will travel with minibus to Esterhazy's famous summer castle „the little Versailles” in Fertőd



Even the empress Maria Therese expressed her admiration for the castle, there she enjoyed various concerts and operas **directed by Haydn**. (<http://www.eszterhaza.hu/>)

We will make sure that we will have the time for a nice coffee - break, where you will have the opportunity to taste some delightful Hungarian pastry.

In case of nice weather we will take a short walk along Lake Fertő. After this nice excursion we will eat a buffet lunch with the conference participant in Hotel Best Western Pannonia.