



TECHNICAL UNIVERSITY IN ZVOLENE
FACULTY OF WOOD SCIENCES AND TECHNOLOGY
AND

WOOD CONGRESS MEMBER ZSVTS – THE ASSOCIATION
OF SLOVAK SCIENTIFIC AND TECHNOLOGICAL SOCIETIES



XIV. MEDZINÁRODNÁ VEDECKÁ KONFERENCIA

THE 14th INTERNATIONAL SCIENTIFIC CONFERENCE

TRIESKOVÉ A BEZTRIESKOVÉ OBRÁBANIE DREVA 2024

CHIP AND CHIPLESS WOODWORKING PROCESSES 2024



September 12–14, 2024

Hotel *** SOREA URÁN
Tatranská Lomnica

GPS: E 20° 16' 30" N 49° 09' 51"

<https://www.sorea.sk/vysoke-tatry/hotel-sorea-uran/>



Conferences and seminars

PROGRAM KONFERENCIE
CONFERENCE PROGRAMME



Streda/Wednesday – 11.9.2024 – Hotel SOREA Urán - Check-in – from 2 pm

17⁰⁰ – 18⁰⁰ Registrácia/Registration
17³⁰ – 20⁰⁰ Večera/Dinner – Hotel SOREA Urán

Štvrtok/Thursday – 12.9.2024 – Hotel SOREA Urán

9⁰⁰ – 10⁰⁰ Registrácia/Registration
10⁰⁰ – 10¹⁵ Otvorenie/Opening
10¹⁵ – 10³⁰ Coffee break
10³⁰ – 12⁰⁰ Presentation – part I.: Trieskové a beztrieskové obrábanie dreva/Chip and Chipless Woodworking Processes

Predsedajúci/Chairmen: doc. Ing. R. KMINIAK, PhD. – dr. hab. eng. G. KOWALUK

OČKAJOVÁ Alena – BANSKI Adrián – KUČERKA Martin – VYHNÁLIKOVÁ Zuzana
Examples of safety and health risk factors in woodworking industry in Slovak Republic

ADAMČÍK Lukáš – KMINIAK Richard – BANSKI Adrián – DUDIAK Michal – PAVELLA Filip Tibor
Mutual comparison of methodologies of line and area surface roughness measurement of steamed beech wood after CNC milling

ČUCHOR Tomáš – KOLEDA Peter – KMINIAK Richard
Analysis of power consumption during milling the wood-based materials

KLEMENT Ivan – VILKOVSKÁ Tatiana – VILKOVSKÝ Peter – SUCHTA Aleksandra – BARAŇSKI Jacek
Cupping deformation during drying of beech wood (*Fagus sylvatica* L.)

KWIDZIŃSKI Zdzisław – PEŃZIK Marta – WILCZYŃSKI Adam – ROGOZIŃSKI Tomasz – DREWZYŃSKI Marcin
Efficiency of integrated technological modules in mass production processes of wooden door frames

KOWALUK Grzegorz – WRONKA, Anita
Thermomechanical Characteristics of PLA for Conversion into Multiphase Biopolymer-Bark Residue Blends

KOCZAN Grzegorz M. – KOZAKIEWICZ Paweł
Progress in research on the Meyer hardness index of wood

12⁰⁰ – 13³⁰ Obed/Lunch – Hotel SOREA Urán

13³⁰ – 14⁰⁰ AREKO prezentácia firmy / presentation of the company

Štvrtok/Thursday – 12.9.2024 – Hotel SOREA Urán

14⁰⁰ – 16⁰⁰ Presentation – part II.: Trieskové a beztrieskové obrábanie dreva/Chip and Chipless Woodworking Processes

Predsedajúci/Chairmen: prof. Ing. A. OČKAJOVÁ, PhD. – prof. Dr. Sc., Eng. K. A. ORLOWSKI

BORYSIUK Piotr – PIECH Radosław – AURIGA Radosław
Biocomposite based on starch and pine wood particles

DUDIAK Michal – BANSKI Adrián
Acidity of steamed beech sapwood and false heartwood

GEJDOŠ Miloš – TOMČÍK Daniel
Dust monitoring in urban heating plants on forest biomass

KUČERKA Martin – ADAMČÍK Lukáš – JÚDA Martin – KMINIAK Richard – OČKAJOVÁ Alena
Comparison of particles from the sanding process of spruce and oak on a narrow belt sander

SLABEJOVÁ Gabriela – ŠMIDRIAKOVÁ Mária – ADAMČÍK Lukáš – VIDHOLDOVÁ Zuzana
Surface Roughness of Oil Surface Finishes on Beech Wood if The Recommended Application Procedure is Not Followed

POTOK Zbigniew – PRAŁAT Barbara – PEŹDZIK Marta – WIADEREK Krzysztof – ROGOZIŃSKI Tomasz
Specific cutting work at drilling particleboards made of an alternative raw material

WRONKA, Anita – KOWALUK Grzegorz.
Processing Parameters of Thermoplastic Starch as a Biopolymer Matrix for Multiphase Biopolymer-Bark Residue Blends

VIDHOLDOVÁ Zuzana – SLABEJOVÁ Gabriela
Decay resistance valuation for false heartwood and mature beech wood

KOVATCHEV Georgy
Influence of V-belt type on the vibration of a woodworking milling machine at idle

16⁰⁰ – 16³⁰ Prestávka/Coffee break

Štvrtok/Thursday – 12.9.2024 – Hotel SOREA Urán

16³⁰ – 18⁰⁰ Postery – Panelová diskusia I./Posters I.

SZWAJKA Krzysztof – ZIELIŃSKA-SZWAJKA Joanna
Identification of the workpiece material based on the of signals from the cutting zone

ZIELIŃSKA-SZWAJKA Joanna – SZWAJKA Krzysztof
Model of energy consumption in drilling processes of wood-based materials based on cutting force

HANINCOVÁ Lud'ka – NOVÁK VÍT – PROCHÁZKA Jiří – MATROSZ Radek
Tool Coatings and Their Effect on Cutting Force Reduction in CNC MDF Milling

KOLEDA Pavol
Chip color analysis using the program Matlab

KOLEDA Peter – HORTOBÁGYI Áron – KMINIAK Richard
Experimental analysis of parameters influence of woodbased materials milling on vibrations amplitude

WILKOWSKI Jacek – BARLAK Marek – DANECKI Leszek
Sliding friction at the interface between WC-Co tool and wood-based panel

BARLAK Marek – WILKOWSKI Jacek:
Modeling of radiation defects generated during ion implantation of WC-Co tools used in wood-based materials machining

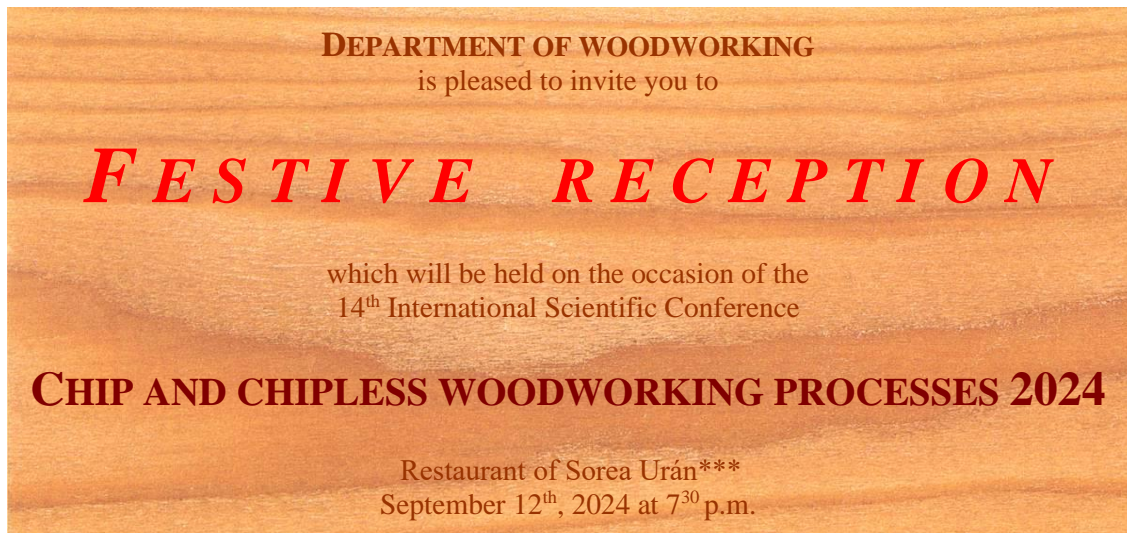
JURKOVIČ Peter – NOVÁK Igor – MATYAŠOVSKÝ Ján – KLEINOVÁ Angela – MIČUŠÍK Matej – SEDLIAČIK Ján
Surface and adhesive properties of beech wood treated by low temperature plasma and saturated water steam

MATYAŠOVSKÝ Ján – SEDLIAČIK Ján – NOVÁK Igor – JURKOVIČ Peter – DUCHOVIČ Peter
Keratin as environmentally friendly formaldehyde scavengers from wood-based panels

ADAMIK Lukasz – BORYSIUK Piotr – AURIGA Radoslaw – WILKOWSKI Jacek
Material indicators of the melamine coated particleboard as a predictive elements for laminate damages

AURIGA Radoslaw
Machinability of particleboard made from different lignocellulosic biomass

ŠUSTEK Ján
Choosing the optimal strategy for machining organic 3d solids on a CNC machining centre



Piatok/Friday – 13. 9. 2024 – Hotel SOREA Urán

10⁰⁰ – 12⁰⁰ **Presentation – part III.: Trieskové a beztrieskové obrábanie dreva/Chip and Chipless Woodworking Processes**

Predsedaajúci/Chairmen: prof. Ing. J. SEDLIČÍK, PhD. – prof. Ing. L. DZURENDA, PhD.

DZURENDA Ladislav – DUDIÁK Michal

Heat consumption for the elimination of color differences of beech sapwood and false heartwood by the steaming process

ADAMČÍK Lukáš – KMINIAK Richard – DARABOŠOVÁ Anna – ČABALOVÁ Iveta

Use of areal surface texture parameters for quantification of porosity of particleboards in the evaluation of their density

ŠTEFANČIN Lukáš – IGAZ Rastislav – KUBOVSKÝ Ivan – KMINIAK Richard

Comparison of kerf widths in CO2 laser cutting of wood-based materials

ULIČNÝ Hugo M. – VILKOVSKÝ Peter – KLEMENT Ivan

Monitoring the dimensional stability of hornbeam lumber in the process of air drying

ŻABOWSKI, Bartłomiej – KOWALUK Grzegorz

Selected physical and mechanical properties of particleboards manufactured from plantation poplar wood

BORYSIEWICZ, Igor – KOWALUK Grzegorz

Properties of plywood composites reinforced with nonwoven fabric

DASIEWICZ, Julia

Initial Characteristics of Particleboard Manufactured from Recycled Wooden Window Frames

DUDIÁK Michal – KMINIAK Richard – BANSKI Adrián

The effect of steaming alder wood on the quality of the milled wood surface

12⁰⁰ – 13³⁰ **Obed/Lunch – Hotel SOREA Urán**

13³⁰ – 14³⁰ **Postery – Panelová diskusia II./Posters II.**

DELIISKI Nencho – DZURENDA Ladislav – ANGESKI Dimitar – VITCHEV Pavlin – ATANASOVA Krasimira

Computing the specific heat capacities and energy consumption of logs subjected to defrosting

Part 1. Calculating the specific heat capacities of frozen wood

DELIISKI Nencho – DZURENDA Ladislav – ANGESKI Dimitar – VITCHEV Pavlin – ATANASOVA Krasimira

Computing the specific heat capacities and energy consumption of logs subjected to defrosting

Part 2. Calculating the energy required to defrost logs

GOCHEV Zhivko – VITCHEV Pavlin

Effect of lens focal length in CO2 laser engraving

- 15⁰⁰ Ukončenie rokovania XIV. MVK – Trieskové a beztrieskové obrábanie dreva 2024/ Ending the discussion in the sections of the conference
- 15⁰⁰ – 21⁰⁰ Wellness–Hotel SOREA Urán – jeden vstup voľný, každý ďalší 9€/one entry free, each additional 9€
- 17³⁰ – 20⁰⁰ Večera/Dinner – Hotel SOREA Urán
- 20⁰⁰ Neformálne priateľské posedenie/Friendly get-together – Hotel SOREA Urán

Sobota/Saturday – 14.9.2024

9⁰⁰ – 12⁰⁰ Skalnaté pleso (cableway) alebo/or Zamkovského chata alebo/or Belianska jaskyňa or Chodník korunami stromov Bachledka/Treetop Walk Bachledka

12³⁰ – Ukončenie a zhodnotenie konferencie/Conference summary and closing

Hotel * SOREA URÁN**
059 60, Tatranská Lomnica GPS: E 20° 16' 30" N 49° 09' 51"

<https://goo.gl/maps/ZxUUPXdJLuy>

<http://www.sorea.sk/vysoke-tatry/hotel-sorea-uran/>

<http://www.vysoketatry.com/ciele/skpleso/skpleso.html>

<http://www.zamka.sk/>

<http://www.ssj.sk/sk/jaskyna/2-belianska-jaskyna>

<https://chodnikkorunamistromov.sk/>



