

TENTH SCIENTIFIC AND TECHNICAL CONFERENCE  
**INNOVATIONS IN FOREST INDUSTRY AND ENGINEERING DESIGN - INNO 2020**

1-3 October 2020, Sofia, Vitosha Park Hotel, Vitosha Hall  
<http://inno.ltu.bg/>

## CONFERENCE PROGRAMME

Thursday, October 1, 2020	
8:30 to 9:00	REGISTRATION OF PARTICIPANTS
9:00 to 9:15	OPENING REMARKS Corresponding Member, Prof. DSc Ivan Iliev – Rector of the University of Forestry Prof. PhD Zhivko Gochev – Dean of Faculty of Forest Industry
9:15 to 11:00	KEYNOTE PAPERS Chairman: Prof. PhD Zhivko Gochev
	25 YEARS ENGINEERING DESIGN PROGRAM: CHALLENGES AND SUCCESSES – Prof. PhD arch. Regina Raycheva
	INNOVATION ENGINEERING: CRADLE TO GRAVE – Assoc. Prof. PhD Nadir Yildirim
	UNIVERSAL DESIGN – SOCIAL, PEDAGOGICAL AND MANAGERIAL CHALLENGE – Ophelia Kaneva, PhD
11:00 to 11:15	COFFEE BREAK
11:15 to 13:00	SESSION 1: RELATIONSHIP BETWEEN THE SCIENCE AND INDUSTRY Chairman: Assoc. Prof. PhD Dimitar Angelski
	BUILDING AN INNOVATION CULTURE IN WOOD-BASED PANEL INDUSTRY– Huseyin Guler, PhD, Director of Business Planning and Innovation, Kastamonu Integrated Wood Trade Inc.
	MORE THAN 90 YEARS FESTOOL. MACHINES CREATED BY PROFESSIONALS FOR PROFESSIONALS – Dipl. Eng. Dochka Veselinova, Petar Yankov, Tooltechnic System Ltd.
	INNOVATIVE WINTER GARDENS AND GAZEBOS MADE OF WOOD, Svetlin Nikolchev – CEO Rollplast, Dipl Eng. Radoslav Bachvarov – Product Manager, Rollplast Group AD
	DIGITAL SOLUTIONS IN THE MODERN TRADE IN WOOD AND WOOD BASED PRODUCTS – Dipl. Eng. Kirl Yankulov, Dipl Eng. Alexander Sevdin, JAF Bulgaria
13:00 to 14:00	LUNCH
14:00 to 16:00	SESSION 2 Chairman: Prof. PhD arch. Regina Raycheva
	THE KINDERGARTEN INTERIOR AS AN IMPORTANT FACTOR FOR THE HEALTHY DEVELOPMENT OF PRESCHOOL CHILDREN – Boris Iliev, Danijela Domljan
	AUGMENTED REALITY (AR) IN PUBLIC INTERIORS – Stela Tasheva
	MINIMALISTIC DWELLING UNITS. ECO AND SMART TRENDS – Ralitsa Stavreva- Pancheva
	SOCIAL RESPONSIBILITY OF DESIGN – Pavlina Vodenova
	ACCESSIBILITY OF THE ENVIRONMENT TO DISADVANTAGED PEOPLE – Maria Kitchoukova
	PARAMETRIC APPROACH IN THE DESIGN OF PRODUCTS AND FURNITURE – Dimitrinka Tasheva
16:00 to 16:15	COFFEE BREAK



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<b>16:15 to 18:00</b>	<b>SESSION 3</b> Chairman: Prof. DSc Nencho Deliiski
	<b>COMPUTATION OF THE THERMAL CONDUCTIVITY OF OAK FURNITURE ELEMENTS SUBJECTED TO CONVECTIVE HEATING BEFORE LACQUERING</b> – Nencho Deliiski, Neno Trichkov, Ladislav Dzurenda, Dimitar Angelski, Zhivko Gochev, Natalia Tumbarkova
	<b>MATHEMATICAL DESCRIPTION OF THE CHANGE IN THE ATMOSPHERIC TEMPERATURE DURING DAYS AND NIGHTS</b> – Nencho Deliiski, Neno Trichkov, Natalia Tumbarkova
	<b>DETERMINATION OF VIBRATION SEVERITY OF CIRCULAR SAW TABLE MACHINE</b> – Pavlin Vitchev, Zhivko Gochev, Georgi Vukov
	<b>DYNAMICS OF NOISE EMISSION GENERATED BY CNC WOODWORKING CENTER</b> – Pavlin Vitchev
	<b>INFLUENCE OF THE DIAMETERS OF PULLEYS ON THE OPERATION OF THE BELT DRIVE</b> – Georgi Kovatchev
	<b>EXPERIMENTAL STUDIES IN PRIMARY WOOD CUTTING WITH CIRCULAR SAW MACHINE</b> – Valentin Atanasov
	<b>OPTIMIZATION OF CUTTING PARAMETERS OF WOODEN PARTS PRODUCED BY DESKTOP CNC MACHINES</b> – Ioannis Ntintakis, Andreas Onoufriou
	<b>QUALITY OF ROUND WOOD AND TIMBER</b> – Panayot Panayotov, Kancho Kalmukov, Momchil Panayotov
<b>18:00</b>	<b>GROUP PHOTO OF THE PARTICIPANTS IN THE CONFERENCE</b>
<b>18:30</b>	<b>WELCOME COCKTAIL</b>

**Technical Secretary:** Assist. Prof. Eng. Vladimir Mihailov



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## CONFERENCE PROGRAMME

### Friday, October 2, 2020

9:00 to 11:00	<b>SESSION 4</b> Chairman: Prof. PhD Vassil Jivkov
	<b>COMPATIBILITY OF HIGH SCHOOL DESK DIMENSIONS WITH ANTHROPOMETRIC MEASUREMENTS</b> – Mehmet Acar, Yusuf Ziya Erdil, Ali Kasal, Guliz Ozcan
	<b>RESEARCH OF COMFORT OF THE SEATING IN UPHOLSTERED ARMCHAIRS IN TERMS OF HUMAN BODY</b> – Mehmet YUKSEL, Yusuf Ziya ERDIL, Ali KASAL, H. Hasan EFE
	<b>STRUCTURAL ANALYSIS OF FURNITURE MADE OF THIN MATERIALS</b> – Vassil Jivkov, Boriana Petrova
	<b>WITHDRAWAL CAPACITY OF SCREWS AND CONFIRMAT INTO THE EDGE OF DIFFERENT WOOD-BASED PANELS</b> – Vassil Jivkov, Borislav Kyuchukov, Ralitsa Simeonova, Assia Marinova
	<b>ULTIMATE BENDING STRENGTH UNDER COMPRESSION TEST OF END CORNER JOINTS BY STAPLES OF DETAILS FROM SCOTS PINE AND STRUCTURAL ELEMENTS OF BOARDS</b> – Desislava Hristodorova, Yancho Genchev, Nelly Staneva
	<b>TENSILE STRENGTH OF T-SHAPE JOINTS MADE OF PLYWOOD</b> – Ralitsa Simeonova
	<b>ANALYSIS OF ANATOMICAL ELEMENTS AS WOOD TEXTURE CHARACTERISTICS</b> – Nikolai Bardarov, Nicole Christoff, Vladislav Todorov, Petar Antov, Mariana Kaludova
11:00 to 11:15	<b>COFFEE BREAK</b>
11:15 to 13:00	<b>SESSION 5</b> Chairman: Assoc. Prof. PhD Julia Mihajlova
	<b>IMPROVING SOME PROPERTIES OF WOVEN GLASS FIBER FABRIC REINFORCED WOOD PLASTIC COMPOSITES</b> – Sefa Durmaz, Yusuf Ziya Erdil, Erkan Avci
	<b>PEEL STRENGTH AND THICKNESS SWELLING OF PANELS EDGEBANDED WITH PVAc (POLYVINYL ACETATE) AND PU (POLYURETHANE) HOT-MELT ADHESIVES</b> – Hande Cakmak Dundar, Yusuf Ziya Erdil, Ertan Ozen, Ahmet Gecgel
	<b>INFLUENCE OF HOT-PRESSING TEMPERATURE ON PROPERTIES OF ECO-FRIENDLY DRY-PROCESSED FIBREBORDS WITH LIGNOSULFONATE ADHESIVES</b> – Viktor Savov, Julia Mihajlova, Bozhidar Madjarov
	<b>QUALITY ASSESSMENT OF PARTICLEBOARDS, OBTAINED OF CONIFEROUS BRANCHES AND TREETOPS AND PHENOL FORMALDEHYDE RESIN</b> – Julia Mihajlova, Borche Iliev, Violeta Jakimovska-Popovska
	<b>POSSIBILITIES FOR UTILIZATION OF WASTE WATER AND RESIDUAL WOOD FIBRES IN THE PRODUCTION OF HARDBOARDS</b> – Viktor Savov, Petar Antov, Nikolay Neykov
	<b>INFLUENCE OF SOME FACTORS ON ADHESIVE STRENGTH IN THE FORMATION OF WATER-BASED FINISHES ON BEECH PLYWOOD</b> – Dimitar Angelski, Krasimira Atanasova
	<b>INFLUENCE OF THE TYPE OF ADHESIVE ON THE PHYSICO-MECHANICAL PROPERTIES OF BEND FURNITURE BOARDS</b> – Vladimir Mihailov, Todor Petkov



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<b>13:00 to 14:00</b>	<b>LUNCH</b>
<b>14:00 to 16:00</b>	<b>SESSION 6 Chairman:</b> Assoc. Prof. PhD Nikolai Bardarov
	<b>FORMAL-ANALYTICAL DESCRIPTION OF WOOD FOR THE PURPOSES OF THE CLASSIFICATION OF WOOD SPECIES. PART 1. QUANTITATIVE LEVELS</b> – Nikolai Bardarov, Vladislav Todorov, Petar Antov, Mariana Kaludova
	<b>THE FORMAL -ANALYTICAL DESCRIPTION OF WOOD FOR THE PURPOSES OF THE CLASSIFICATION OF WOOD SPECIES. PART 2. WOOD FORMULAS</b> – Nikolai Bardarov, Vladislav Todorov, Petar Antov, Mariana Kaludova
	<b>STUDY ON THE EFFECT OF THE BEARING CLEARANCE OF THE WHEELS ON THE MOVEMENT OF THE BAND SAW BLADE</b> – Peter Nikolov, Valentin Atanasov
	<b>FORCED SPATIAL VIBRATIONS OF A WOOD SHAPER, CAUSED BY THE WEAR OF THE CUTTING TOOL</b> – Georgi Vukov, Pavlin Vitchev, Zhivko Gochev, Valentin Slavov
	<b>DURABILITY STUDY OF TUNGSTEN CARBIDE CUTTER HEADS</b> – Zhivko Gochev, Pavlin Vitchev, Georgi Vukov
	<b>OPTIMIZATION OF DRIVES AT AUTOMATION OF THE FLOW OF DETAILS IN WOODWORKING PRODUCTIONS</b> – Izabela Radkova
	<b>ANALYSIS OF FACTORS EFFECTING ON QUALITATIVE PARAMETERS OF SURFACE WHEN PLANAR MILLING HEAT-TREATED OAK WOOD</b> – Marek Vančo, Michal Korčok, Štefan Barcík, Peter Koleda, Zhivko Bonev Gochev
	<b>INNOVATION OF CNC MACHINERY PROGRAMMING EDUCATION AT THE FACULTY OF TECHNOLOGY</b> – Peter Koleda, Pavol Koleda, Štefan Barcík
<b>16:00 to 16:15</b>	<b>COFFEE BREAK</b>
<b>16:15 to 17:30</b>	<b>SESSION 7 Chairman:</b> Prof. DSc Diana Ivanova
	<b>INNOVATIVE METHODS IN TRAINING IN THE COURSE OF DESIGN MANAGEMENT</b> – Diana Ivanova
	<b>DESIGN THINKING - AN INNOVATIVE MANAGEMENT APPROACH</b> – Diana Ivanova, Gergana Koleva
	<b>DESIGN THINKING - AN OPEN PERSPECTIVE FOR INNOVATION</b> – Gergana Koleva
	<b>TRENDS IN THE DEVELOPMENT OF FURNITURE PRODUCTION IN BULGARIA</b> – Elena Stefanova
	<b>EXPERIMENTAL APPLICATION OF THE METHOD OF FOCAL OBJECTS IN DESIGN EDUCATION</b> – Desislava Angelova
	<b>THE DEVELOPMENT OF THE SPECIALITY ENGINEERING DESIGN AT THE UNIVERSITY OF FORESTRY IN THE EYES OF ITS GRADUATES</b> – Pavlina Vodenova, Desislava Angelova
<b>19:30</b>	<b>GALA DINNER</b> – IVANOVA MEHANA, MLADOST 1, 22 JERUSALIM Str.

**Technical Secretary:** Chief Assist. Prof. Todor Petkov



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**Dear Participants,**

For ensuring well-organized sessions and sufficient time for discussions, the following recommendations are made for paper presentations:

- Presentations should be 7 minutes long and should include topic introduction, statement of objectives, methods used, main results, conclusions and recommendations for future research;
- Discussions involving questions and answers should be 3 minutes long immediately after the paper presentation;
- Each presenter should upload his presentation (prepared in English according to the requirements provided on the conference website <http://inno.ltu.bg/>) on the computer before the relevant session.

**The organizing committee of the conference has taken all necessary virus prevention measures to ensure the health safety. We kindly ask that these measures be strictly observed by all participants and guests of the conference.**

