Sunday, June 22

14:00 to 16:00  Registration and Packet Pickup - Aula Building, Technical University in Zvolen
17:00 to 19:00  Opening Ceremony: Zvolen Castle

Monday, June 23

7:00  Registration and Packet Pickup - Aula Building, Technical University in Zvolen

All Sessions will be Held in Aula Building

8:00 to 10:00  Hardwood Research & Utilization
  Session Co-Chairs: Rado Gazo, Purdue University, USA and Róbert Németh, University of West Hungary, Hungary
  
  8:00 to 8:20  Rado Gazo, Purdue University, USA
  CT Scanning of Logs – Analysis and Optimization for Better Utilization of Hardwoods
  
  8:20 to 8:40  Roman Réh, Technical University in Zvolen, Slovakia
  Decorative Veneer Properties of Black Walnut (Juglans nigra L.)
  
  8:40 to 9:00  Leandro Passarini, Université Laval, Canada
  Distribution of the Equilibrium Moisture Content in Four Hardwoods Below Fiber Saturation Point by Magnetic Resonance Microimaging
  
  9:00 to 9:20  Bryan Dick, North Carolina State University, USA
  Changes in the Anatomy of Exposed Roots of Some Hardwood Species
  
  9:20 to 9:40  Szabolcs Komán, University of West Hungary, Hungary
  Mechanical Properties of Common Beech (Fagus sylvatica L.) after Microwave Drying in Comparison to Naturally and Laboratory Oven-dried Material
  
  9:40 to 10:00  Róbert Németh, University of West Hungary, Hungary
  Protecting Effect of Beeswax Impregnation on the Modulus of Elasticity During Soil Contact
  
  10:00 to 10:20  BREAK

10:20 to 12:00  Solid Wood Manufacturing
  Session Co-Chairs: Bob Rice, University of Maine, USA and Levente Dénes, University of West Hungary, Hungary
  
  10:20 to 10:40  Douglas J. Gardiner, University of Maine, USA
  Processing Conditions Contributing to Formaldehyde Emissions from “Native” Wood
  
  10:40 to 11:00  Thomas Krenke, Kompetenzzentrum Holz GmbH, Austria
  A New Method of Dynamic 3D-cutting Force Analysis of Wood

schedule continues on next page
### Monday, June 23

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker/Institution</th>
<th>Topic</th>
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<tbody>
<tr>
<td>11:00 - 11:20</td>
<td>Sudipta Dasmohapatra, North Carolina State University, USA</td>
<td>Solid Wood Furniture Marketing</td>
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<tr>
<td>11:20 - 11:40</td>
<td>Levente Dénes, University of West Hungary, Hungary</td>
<td>Monte Carlo Simulation of Window’s Air Tightness Performance</td>
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<td>11:40 - 12:00</td>
<td>Nikolay Skuratov, Moscow State Forest University, Russia</td>
<td>Decorative Finger Jointing of Valuable Wood</td>
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<td>12:00 - 13:00</td>
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<td>LUNCH - Technical University Dining Hall</td>
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<tr>
<td>13:00 - 14:50</td>
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<td>Forest Products Policy, Global Trade, and Value Chain Management</td>
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<td>Session Co-Chairs: Eric Hansen, Oregon State University, USA and Mikulas Supin, Technical University in Zvolen, Slovakia</td>
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<tr>
<td>13:00 - 13:15</td>
<td>Henry Quesada-Pineda, Virginia Tech, USA</td>
<td>Factors Impacting the Export of US Hardwoods in Germany, China and Vietnam</td>
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<tr>
<td>13:15 - 13:30</td>
<td>Manja Kuzman, University of Ljubljana, Slovenia</td>
<td>Timber Passive House Technologies of Slovenian Contemporary Architecture</td>
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<tr>
<td>13:30 - 13:45</td>
<td>Yvonne Brodrechtova, Technical University in Zvolen, Slovakia</td>
<td>Dynamics of Slovakian Timber Market in Retrospect</td>
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<tr>
<td>13:45 - 14:00</td>
<td>Michael Burnard, University of Primorska, Slovenia</td>
<td>Restorative Environmental Design: Wood as a Material for Sustainable, Healthy Environments</td>
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<tr>
<td>14:00 - 14:15</td>
<td>Alexandru Giurca, European Forest Institute, Sweden</td>
<td>European Union Timber Regulation Impact on International Timber Markets</td>
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<tr>
<td>14:15 - 14:30</td>
<td>Erlend Nybakk, Norwegian Forest and Landscape Institute, Norway</td>
<td>Chemical Suppliers’ Views and Impact on Innovation in the Wood Treating Industry</td>
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<td>14:30 - 14:45</td>
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<td>Discussion</td>
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<td>14:45 - 15:10</td>
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<td>BREAK</td>
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<tr>
<td>15:10 - 17:00</td>
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<td>Sustainable Forest Management</td>
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<td></td>
<td>Session Co-Chairs: Ilona Peszlen, North Carolina State University, USA and Jaroslav Kmet, Technical University in Zvolen, Slovakia</td>
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<tr>
<td>15:10 - 15:30</td>
<td>Julie Bossu, CNRS, UMR Ecofog, French Guiana</td>
<td>Looking for “Paradoxical” Species for a Sustainable Forest Management in French Guiana</td>
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<tr>
<td>15:30 - 15:50</td>
<td>Ubong Ime Udoakpan, University of Uyo, Nigeria</td>
<td>A Comparative Study of Wood Properties of Pinus caribaea (Morelet) in Two Plantation Ages in Oluwa Forest Reserve, Ondo State, Nigeria</td>
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<tr>
<td>15:50 - 16:10</td>
<td>Anton Zbonak, Department of Agriculture, Fisheries and Forestry, Australia</td>
<td>Veneering of Plantation Grown Sub-tropical Species from Thinning Experiments</td>
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<tr>
<td>16:10 - 16:30</td>
<td>Tahiana Ramananantoando, Université d'Antananarivo, Madagascar</td>
<td>Influence of the Tree Diameter and Shade-tolerance on Wood Density and its Radial Variation in Madagascar Rainforest</td>
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<tr>
<td>16:30 - 16:50</td>
<td>Perry Peralta, North Carolina State University, USA</td>
<td>Bridging Forest Biotechnology and Biomaterials Engineering</td>
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<tr>
<td>17:15 - 19:00</td>
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<td>Forestry and Wood Technology Museum Tour</td>
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*Schedule continues on next page*
Tuesday, June 24

8:00 to 12:00  Lignocellulosic Material Science and Wood Quality  
Session Co-Chairs: Barry Goodell, Virginia Tech, USA and Alfred Teischinger, Universität für Bodenkultur, Austria

8:00 to 8:20  Roger Rowell, University of Wisconsin, USA  
Accessibility and Reactivity of Hydroxyl Groups in Wood

8:20 to 8:40  Barry Goodell, Virginia Tech, USA  
Non-enzymatic Deconstruction Systems in the Brown Rot Fungi

8:40 to 9:00  Jerrold Winandy, University of Minnesota, USA  
Modeling Severity of Exposure Relationships Between Laboratory and Field Exposures for FRT Plywood

9:00 to 9:20  Chloé Maury, Université du Québec à Trois-Rivières, Canada  
Study of Mechanical Properties of Composites Based on TEMPO-oxidized Cellulose Gel and Silica Nanoparticles

9:20 to 9:40  Dimitrios Tsalagkas, University of West Hungary, Hungary  
Morphological and Structural Changes of Ultrasound-treated Bacterial Cellulose

9:40 to 10:00  Stefan Pinkl, Kompetenzzentrum Holz GmbH, Austria  
Fibrillation of Different Lignocellulose Suspensions and their Bonding Strength to Wood Compared with Nanocellulose

10:00 to 10:20  BREAK

10:20 to 10:40  Martin Riegler, Martin Weigl, and Ulrich Müller, Wood K Plus, Austria  
The Role of Fibre Characteristics for Online Process Adaptation in the Manufacturing of MDF

10:40 to 11:00  Galina Gorbacheva, Moscow State Forest University, Russia  
Research of Molecular-Topological Structure at Shape-Memory Effect of Wood

11:00 to 11:20  Peder Gjerdrum, Norwegian Forest and Landscape Institute, Norway  
Grain Angle Variation in Norway Spruce: Overall Pattern and Stochastic Dissimilarities Within and Between Stems

11:20 to 11:40  Ilona Peszlen, North Carolina State University, USA  
Variation in Cell Morphology of Genetically Engineered Aspen and Cottonwood

11:40 to 12:00  Hyeun-Jong Bae, Chonnam National University, Korea  
Rapid Hydrolysis of Lignocellulosic Wood Biomass

12:00 to 13:00  LUNCH - Technical University Dining Hall  
Group Picture

13:00 to 14:00  Lignocellulosic Material Science and Wood Quality  
Session Co-Chairs: Barry Goodell, Virginia Tech, USA and Alfred Teischinger, Universität für Bodenkultur, Austria

13:00 to 13:20  Veronika Kotradyova, Slovak University of Technology, Faculty of Architecture, Slovakia  
Tactile Interaction and Contact Comfort of Wood and Wood Materials

13:20 to 13:40  Peter Niemz, ETH Zurich, Switzerland  
Effect of Natural Aging on Wood Properties

13:40 to 14:00  Stephen Frybort, Kompetenzzentrum Holz GmbH, Austria  
Deformation Analysis of Cutting Processes of Wood

14:00 to 15:00  Poster Setup - Entrance Area Technical University

15:00 to 18:00  Poster Session with Cash Bar and Student Poster Competition  
Session Co-Chairs: Douglas Gardner, University of Maine, USA and Jozef Kúdela, Université de Québec à Trois-Rivières, Canada
Wednesday, June 25

8:00 to 12:00 Wood Panels Composites
Session Co-Chairs: Marius Barbu, Transilvania University of Brasov, Romania and Sergej Medved, University of Ljubljana, Slovenia

8:00 to 8:20 Marius Barbu, Salzburg University of Applied Sciences, Austria
The Use of Waste Leather in Wood-based Panels

8:20 to 8:40 Marius Barbu, Salzburg University of Applied Sciences, Austria
Bark-based Insulation Panels Made of Different Softwood Barks

8:40 to 9:00 Ayfer Donmez Cavdar, Karadeniz Technical University, Turkey
Some Properties of Fire Retardants and Sand Dusts of Medium Density Fiberboard Filled Wood Plastic Composites

9:00 to 9:20 Kate Semple, University of British Columbia, Canada
Optimising the Standing of Moso Bamboo (Phyllostachys pubescens Mazel) Culms Using a CAE 6/36 Disk Flaker.

9:20 to 9:40 Ahmad Jahan-latibari, Islamic Azad University Karaj Branch, Iran
The Potential Of Urban Wood Residues in Particleboard Production

9:40 to 10:00 Eike Alexander Mahrdt, Wood K Plus, Austria
A New Analytical Method to Study UF Resin Distribution within Particle Boards

10:00 to 10:20 BREAK

10:20 to 10:40 Johann Trischler, Linnaeus University, Sweden
Classification of Lignocellulose Raw Materials Regarding Selected Material Properties and the Requirements of Three Competitors to Reveal Options for Alternative Use

10:40 to 11:00 Christoph Wenderdel, Institut fuer Holztechnologie Dresden GmbH, Germany
Very Thin Medium Density Fibreboards (MDF) with Paperboard-like Properties as Reusable Packaging Material

11:00 to 11:20 Anna Ślęzak, Poznan University of Life Sciences, Poland
Investigations upon Resistance of Surfaces Panel Elements Bonding by Artificial Veneers from Hot Melt Adhesives

11:20 to 11:40 Min Niu, Fujian Agriculture and Forestry University, China
Fire Properties Improvement of an Ultralow Density Fiberboard

11:40 to 12:00 Levente Dénes, University of West Hungary, Hungary
Finite Element Modelling Simplification of Paper Honeycomb Panels by a Substituting Homogenous Core

12:00 to 13:00 LUNCH - Technical University Dining Hall

13:00 to 17:00 Wood Construction & Structures
Session Co-Chairs: Arijit Sinha, Oregon State University, USA and Bohumil Kasal, Fraunhofer Wilhelm Klauditz Institute, Germany

13:00 to 13:20 Andreja Kutnar, University of Primorska, Slovenia
Cross Laminated Timber Panels Using Hybrid Poplar

13:20 to 13:40 Karol Sikora, National University of Ireland, Ireland
Durability of Adhesive Bonds in Cross-laminated Timber (CLT) Panels Manufactured Using Irish Sitka Spruce

13:40 to 14:00 Bryan Dick, North Carolina State University, USA
Fire Performance of Adhesives Used for Southern Pine Cross-Laminated Timber

14:00 to 14:20 Georg Stecher, University of Innsbruck, Austria
Wednesday, June 25

14:20 to 14:40  “Radiusholz” – Curved Cross-laminated Timber Elements  
Marius Barbu, Salzburg University of Applied Sciences, Austria
Cross Laminated Timber – Implementation of European Experiences in the USA
14:40 to 15:00  BREAK
15:00 to 15:20  A Hybrid Input-Output LCA Analysis of Timber Construction Products Produced in Ireland  
Desmond Dolan, NUI. Galway, Ireland
15:20 to 15:40  Cross Laminated Timber – Implementation of European Experiences in the USA  
David DeVallance, West Virginia University, USA
Spatial Analysis of Certified Wood Use in LEED Green Building Projects
15:40 to 16:00  Impact Loading of Wood  
Bohumil Kasal, TU Braunschweig, Kasal-Fraunhofer WKI, Germany
16:00 to 16:20  Experimental Verification of Numerical Model of Single and Double-Shear Dowel-Type Joints of Wood  
Jaromir Milch, Mendel University in Brno, Czech Republic
16:20 to 16:40  Discussion
16:40 to 18:00  SWST Business Meeting

Thursday, June 26

8:00 to 12:00 Energy, Fuels, Chemicals  
Session Co-Chairs: Dave DeVallance, West Virginia University, USA and Margareta Wihersaari, Åbo Akademi University, Finland
8:00 to 8:20  Fuel Pellets from Low Quality Hardwood Trees: Raw Materials and Pelletization Characteristics  
Quy Nam Nguyen, Université Laval, Canada
8:20 to 8:40  Rapid Assessment of Pellet Ash Agglomeration Using Electrical Resistivity  
Robert Rice, University of Maine, USA
8:40 to 9:00  Wood to Wing - Envisioning an Aviation Biofuels Industry from Forest Residuals  
Michael Wolcott, Washington State University, USA
9:00 to 9:20  Fast Pyrolysis of Wastes and Bio-refinery for Value-added Products  
Wenliang Wang, Beijing Forestry University, China
9:20 to 9:40  Optimizing Urea Concentration for Woody Biomass Pretreatment  
Amy Falcon, West Virginia University, USA
9:40 to 10:00  Life-cycle Inventory Analysis of Bio-products from a Modular Advanced Biomass Pyrolysis System  
Hongmei Gu, US Forest Service Forest Products Laboratory, USA
10:00 to 10:20  BREAK
10:20 to 10:40  Improvement of Furfural Production From Concentrated Pre- Hydrolysis Liquor (PHL) of a Kraft-Based Hardwood Dissolving Pulp Production Process  
Md Sarwar Jahan, BCSIR, Bangladesh
10:40 to 11:00  Electron Microscopic Study of Neat and Hot Water Extracted Aspen Wood by Means of Selective Electron Dense Staining and Immunogold Labeling  
Melanie Blumentritt, University of Maine, USA
11:00 to 11:20  Curing Kinetics of Spruce Bark Tannin-Based Foams  
Milan Sernek, University of Ljubljana, Slovenia
11:20 to 11:40  Biolignin™, a Renewable and Efficient Natural Product for Wood Adhesives  
Michel Delmas, University of Toulouse, France
11:40 to 12:00  Some Physical and Mechanical Properties of Two-step Organo-montmorillonie Modified Wood Flour/
### Polypropylene Composites

**Thursday, June 26**

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<th>Time</th>
<th>Session</th>
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<tr>
<td>12:00 to 13:00</td>
<td>LUNCH - Technical University Dining Hall</td>
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<tr>
<td>13:00 to 17:00</td>
<td><strong>Advanced Wood and Polymer Composites</strong></td>
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<td><strong>Session Co-Chairs:</strong> Rupert Wimmer, BOKU Vienna, IFA Tulln, Austria and Joris Van Acker, Ghent University, Belgium</td>
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<td>13:00 to 13:20</td>
<td>Rupert Wimmer, BOKU Vienna, IFA Tulln, Austria</td>
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<td>Natural Bio-polymers, Bio-based, Sustainable Biomaterials and Green Composites. Do We Still Need Wood?</td>
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<td>13:20 to 13:35</td>
<td>Matthew Schwarzkopf, Oregon State University, USA</td>
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<td>Strain Distribution and Load Transfer in the Polymer-wood Particle Bond in Wood Plastic Composites (WPCs)</td>
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<td>13:35 to 13:50</td>
<td>Gloria Oporto, West Virginia University, USA</td>
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<td>Microstructure, Mechanical, Thermal and Antimicrobial Properties of Hybrid Copper Nanoparticles and Cellulose Based Materials Embedded in Thermoplastic Resins</td>
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<td>13:50 to 14:05</td>
<td>Stephen Shaler, University of Maine, USA</td>
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<td>Cellulose Nanofibril (CNF) Reinforced Open Cell Foams - Application of Cubic Array Foam Theory</td>
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<td>14:05 to 14:20</td>
<td>Sheldon Shi, University of North Texas, USA</td>
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<td>Vacuum Assisted Resin Transfer Molding Process for Kenaf Fiber Based Composites</td>
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<td>14:20 to 14:35</td>
<td>David DeVallance, West Virginia University, USA</td>
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<td>Bio-based Carbon/Polyvinyl Alcohol Piezoresistive Sensor Material</td>
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<td>14:35 to 14:50</td>
<td>A. Emeran Neuhäuser, Wood K Plus, Austria</td>
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<td>Lifecycle of a Novel Bio-based Wood Composite made of Sawmill Waste</td>
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<td>14:50 to 15:05</td>
<td>Nadir Ayrilmis, Istanbul University, Turkey</td>
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<td>Mechanical Performance of Wood Plastic Composite Containing Decayed Wood</td>
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<td>15:05 to 15:30</td>
<td>BREAK</td>
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<tr>
<td>15:30 to 15:50</td>
<td>Joris Van Acker, Ghent University, Belgium</td>
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<td>Moisture Dynamics of Plywood and Impact on Time of Wetness</td>
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<td>15:50 to 16:05</td>
<td>Yonggun Park, Seoul National University, Korea</td>
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<td>Properties of the Wood Dried and Heat-treated by Superheated Steam</td>
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<td>16:05 to 16:20</td>
<td>Sheldon Shi, University of North Texas, USA</td>
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<td>Correlation Between Fracture Fractal Dimension and Wood Shear Properties after Hydrothermal Treatment</td>
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<td>16:20 to 16:35</td>
<td>Roland Maderebner, University of Innsbruck, Austria</td>
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<td>Artificially Aged Timber for Structural Components</td>
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<td>16:35 to 17:00</td>
<td>Discussion</td>
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<tr>
<td>18:30 to 22:00</td>
<td>Banquet - Reštaurácia Koliba Stráže</td>
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**Friday, June 27**

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<tbody>
<tr>
<td>8:00 to 17:30</td>
<td>Final Day Tour - Banská Štiavnica - UNESCO World Heritage Site and Hronsek Church</td>
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