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This issue contains selected papers presented at the

7th International Scientific Conference

“WOOD TECHNOLOGY & PRODUCT DESIGN”

organized by the Faculty of Design and Technologies of Furniture and Interior-Skopje, Ss. Cyril and Methodius University in Skopje, held at the University Congress Center, Ohrid, Republic of North Macedonia, from 17 to 20 September 2025.





With deep appreciation for his outstanding contribution, this issue is dedicated to

Prof. Dr. Goran Zlateski

Former Editor-in-Chief.

In recognition of his years of dedicated service and exceptional contribution to the development of the International Journal – Wood, Design & Technology.

Through his vision, commitment, and expertise, he established a strong foundation for the journal's scientific quality and continued development. His guidance has shaped the journal's identity, and his experience remains an invaluable asset as a member of the Editorial Board.

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PREFACE

Dear Colleagues,

It is my great pleasure to present Volume 15, Issue 1 of the International Journal – Wood, Design & Technology. This issue brings together ten original scientific papers that reflect current developments in wood science, wood technology, furniture manufacturing, design, and related disciplines. The diversity of the published research demonstrates the importance of interdisciplinary collaboration and the continuous advancement of scientific knowledge in these fields.

The opening paper investigates the natural color variation of pine heartwood and sapwood in the CIE Lab* color space. The findings contribute to a better understanding of wood color characteristics and their importance in furniture manufacturing and interior applications.

The second paper explores the use of computed tomography for improving sawlog quality grading. By comparing conventional measurements with CT-based geometric reconstruction, the authors demonstrate the potential of advanced scanning technologies for more accurate log assessment.

Mařík & Cristini present an integrated approach that combines acoustic tomography with resistograph measurements for evaluating the internal condition of trees and wooden logs. The proposed methodology provides a more comprehensive interpretation of wood defects and supports the development of modern diagnostic tools.

The fourth paper examines the influence of circular saw blade height on cutting performance. The presented results improve the understanding of machining parameters and their effect on cutting forces during wood processing.

The fifth paper investigates the liquefaction of oak and hemp biomass for the development of formaldehyde-free adhesives. The study contributes to ongoing research focused on sustainable materials and environmentally friendly adhesive systems.

The sixth paper compares the volume, quality, and value yield obtained during the processing of linden logs into sawn timber. The results provide useful information for improving resource efficiency and optimizing sawmill production.

Authors Antovska and Stankevikj Shumanska discuss the implementation of Lean methodology in the manufacturing process at Lattoflex. The presented case study highlights practical approaches for improving logistics, reducing waste, and increasing production efficiency.

The eighth paper addresses the concept of ephemerality in public architecture and interior design, with particular emphasis on retail spaces in the Republic of North Macedonia. The authors examine the factors influencing the transformation of commercial interiors and their role in responding to contemporary social and economic changes.

Jevtoska, Gruevski & Mihajlovski investigate the strength of corner joints in window frames. By evaluating their mechanical performance, the study contributes to improving the quality and durability of window construction.

The final paper analyzes quality control methods applied in the furniture factory "Diva Divani" in Vranjska Banja. The authors emphasize the importance of systematic quality management for increasing product reliability and manufacturing efficiency.

We would like to express sincere gratitude to all authors for choosing our journal to present their research. Appreciation also goes to the reviewers for their valuable time, expertise, and constructive comments, as well as to the members of the Editorial Board for their continued support and commitment to maintaining the scientific quality of the journal.

Sincerely,

Ana Marija Stamenkoska, Ph.D.

Editor-in-Chief
International Journal – Wood, Design & Technology

Wood, Design & Technology is an international peer-reviewed scientific journal dedicated to the publication of original research in wood science, wood processing, furniture technology, interior and product design, materials engineering, and related disciplines.

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POLICIES

Aim and Scope

The aim of WDT is to publish peer-reviewed research and review articles in rapidly developing fields of wood science, including the interrelationships with design and technology.

Peer-Review Process

All articles submitted to the International Journal–Wood, Design & Technology undergo a double-blind peer-review process and are evaluated by at least two independent reviewers in the relevant field before being considered for publication.

The identities of the authors remain anonymous to the reviewers throughout the peer-review process.

Publication Frequency

The journal is published twice a year.

Open Access Policy

The International Journal – Wood, Design & Technology is the only scientific journal in the Republic of North Macedonia dedicated to bringing together the diverse disciplines of wood science, wood technology, furniture, product and interior design, and related fields, reflecting their close interconnection in both research and practice.

The journal welcomes original scientific contributions from researchers in the Republic of North Macedonia and from the international scientific community.

Wood, Design & Technology is an open access journal. All published articles are freely and permanently available online without subscription or access fees.

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