

DR. JURE ŽIGON JE PREJEL JESENKOVO NAGRADO BIOTEHNIŠKE FAKULTETE UL ZA NAJBOLJŠEGA DIPLOMANTA DOKTORSKEGA ŠTUDIJA 3. STOPNJE 2021

DR. JURE ŽIGON RECEIVED THE JESENKO AWARD OF THE BIOTECHNICAL FACULTY UL FOR THE BEST PHD GRADUATE IN 2021

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Slika 1. Dekanja Biotehniške fakultete prof. dr. Nataša Poklar Ulrih je nagrajencu dr. Juretu Žigonu podelila Jesenkovo nagrado za najboljšega diplomanta doktorskega študija.

Figure 1. The Dean of the Biotechnical Faculty, Prof. Dr. Nataša Poklar Ulrih, presented the Jesenko Award for the best PhD graduate to Dr. Jure Žigon.

Izvilleček / Abstract

Izvilleček: Jesenkove nagrade Biotehniške fakultete UL so najvišja priznanja za pedagoške, raziskovalne in strokovne dosežke ter za gospodarski in splošni družbeni napredek na področju biotehniških ved v Sloveniji. Biotehniška fakulteta jih podeljuje že vse od leta 1973, med njimi tudi Jesenkovo nagrado za najboljšega diplomanta doktorskega študija. Za leto 2021 je to nagrado na slovesnosti v marcu 2022 prejel asist. dr. Jure Žigon, ki je na Oddelku za lesarstvo BF zaposlen kot samostojni strokovni delavec.

Ključne besede: Jesenkova nagrada, najboljši diplomant doktorskega študija, Biotehniška fakulteta, Univerza v Ljubljani

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Dahle, S., & Petrič, M.: Dr. Jure Žigon received the Jesenko Award of the Biotechnical Faculty UL for the best PhD graduate in 2021

Abstract: The Jesenko Awards of the Biotechnical Faculty, University of Ljubljana, are the highest awards for pedagogical, research and professional achievements and for economic and general social progress in the biotechnical field in Slovenia. The Biotechnical Faculty has been giving these awards since 1973, including the Jesenko Award for the best doctoral studies graduate. For 2021 the recipient of this award was Assist. Dr. Jure Žigon, who received it at a celebration in March 2022. Dr. Žigon is employed at the Department of Wood Science and Technology at the Biotechnical Faculty as an independent professional associate.

Keywords: Jesenko Award, the best graduate of doctoral studies, Biotechnical faculty, University of Ljubljana

Jesenkove nagrade predstavljajo najvišja priznanja Biotehniške fakultete za pedagoške, raziskovalne in strokovne dosežke ter za gospodarski in splošno družbeni napredek na področju biotehniških ved v Sloveniji. Jesenkovo nagrado, ustanovljeno leta 1973, podeli Biotehniška fakulteta vsako leto do trem posameznikom, in sicer za življenjsko delo, za najboljšega diplomanta doktorskega študija ter za najboljšega diplomanta magistrskega študija. Podelitev nagrade za najboljšega diplomanta doktorskega študija v letu 2021 letošnjemu prejemniku dr. Juretu Žigonu je prikazana na sliki 1.

Prejemnik se je rodil v Ljubljani, kjer je obiskoval osnovno šolo in nato Srednjo lesarsko šolo, preden je začel s študijem lesarstva na Biotehniški fakulteti Univerze v Ljubljani. Le-tega je končal leta 2012 (BSc.) in 2014 (MSc.).

Osnovno področje znanstvenega delovanja dr. Jureta Žigona je lesarstvo, s svojimi raziskavami pa deluje tudi na drugih povezanih področjih, tako znotraj Univerze v Ljubljani in tudi izven nje. Njego-

ve objave vključujejo raziskave premazov za les, njihove oprijemnosti, vremenske vplive na obdelane površine, lepljenje lesa in drugih materialov, modifikacijo lesa z organskimi in anorganskimi pripravki, utekočinjanje lesa, odpornost proti glivam, lesne mikrostrukture, 3D tisk in celo oprijem bakterij na lignocelulozne podlage.

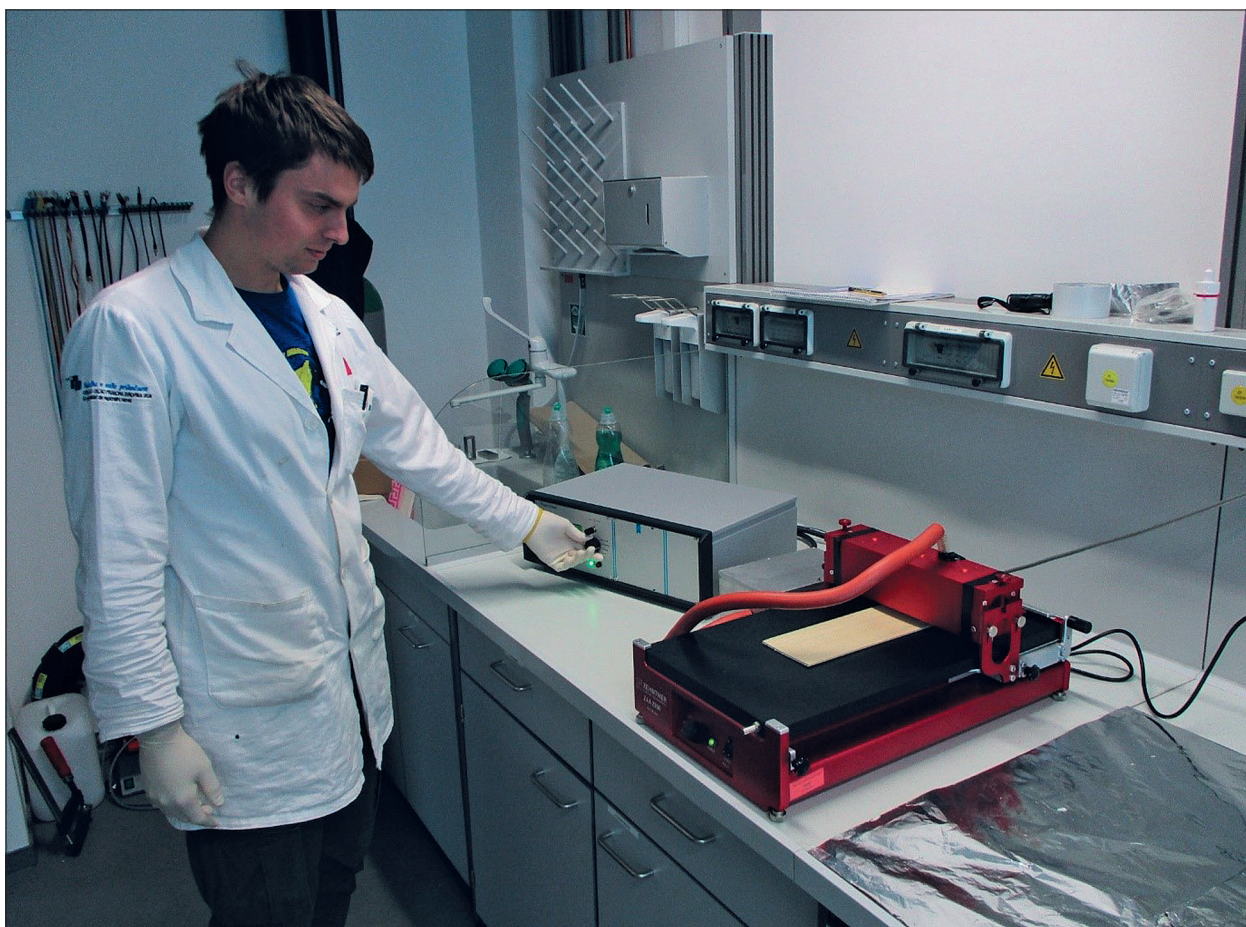
Nagrajenec je doktoriral z izjemno bibliografijo, ki vsebuje 31 izvirnih znanstvenih objav, 1 pregledni znanstveni članek, 1 patentno prijavo ter vrsto drugih objavljenih del in znanstvenih uspehov. Od teh predstavlja 13 objav neposredni del njegove doktorske disertacije. Na področju lesarstva je kljub svoji mladosti že mednarodno priznan, tako s svojimi objavami, kot tudi zaradi gostovanj na drugih institucijah v okviru mednarodnih znanstvenih izmenjav. Raziskovalno delo je izven dela na matični instituciji opravljal na šestih znanstvenih institucijah v štirih evropskih državah (sliki 2 in 3).

Tema doktorata Jureta Žigona je bila osredotočena na tehnologijo, ki smo jo na Oddelku za



Slika 2. Jure Žigon med udeleženci mednarodne šole inovacij Sprungbrett, 2016.

Figure 2. Jure Žigon among the participants of the international Innovation School Sprungbrett, 2016.



Slika 3. Jure Žigon med kratkim znanstvenim obiskom (COST action FP1407) na Tehniški univerzi Clausthal v Nemčiji, leta 2017.

Figure 3. Jure Žigon during a short-term scientific mission (COST action FP1407) at Clausthal University of Technology, Germany, 2017.

lesarstvo uvedli nedavno, in sicer na izkoriščanje netermičnih plazemskih razelektritev. Skupaj z mentorjem doc. dr. Sebastianom Dahlejem je dr. Žigon razvil in izdelal plazemsko napravo z novim principom delovanja za obdelavo lesa, tako da naprava uporablja lesene obdelovance kot elektrode s plavajočim potencialom. To novo vrsto plazme z dielektrično barierno razelektritvijo s plavajočo elektrodo je uspešno uporabil za modifikacijo površin lesa, npr. za večjo hidrofilnost in združljivost s premazi na vodni osnovi. Čeprav te spremembe niso trajne, je bilo ugotovljeno, da trajajo dovolj dolgo in so zato uporabne za različne aplikacije, vključno z obdelavo lesa z notranjimi in zunanji premazi ter izboljšano trdnostjo lepilnega spoja.

Poleg znanstvenoraziskovalnega dela se dr. Žigon aktivno ukvarja z vsakodnevnimi dejavnostmi

na Oddelku za lesarstvo. Njegove odgovornosti segajo od upravljanja analitske opreme, npr. vrstičnega elektronskega mikroskopa, do dejavnosti testiranja za komercialne partnerje in najrazličnejših tehničnih opravil v laboratorijih in v delavnici Oddelka, vključno s praktičnimi mizarskimi spretnostmi obdelave lesa in z načrtovanjem in izdelavo najrazličnejših lesenih izdelkov v okviru raziskovalnih projektov ter pedagoškega dela. Poleg tega dr. Žigon sodeluje v dejavnostih odnosov z javnostjo, vključno z dogodki za dijake (slika 4), pri poučevanju eksperimentalnih predmetov in pri nadzoru diplomskega dela študentov.

Z vso svojo angažiranostjo, motivacijo in znanstveno odličnostjo se je dr. Žigon izkazal kot pomemben del Katedre za lepljenje, lesne kompozite, obdelavo površin in konstruiranje (slika 5) ter se je

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Slika 4. Dr. Žigon dijakom predstavlja laboratorij za obdelavo površin lesa.
Figure 4. Dr. Žigon presents the wood surface treatment laboratory to pupils.



Slika 5. Skupina laboratorija za obdelavo površin, od leve: doc. dr. Pavlič, doc. dr. Dahle, dr. Žigon, prof. dr. Petrič.
Figure 5. Work group of the surface treatment laboratory, from left: Assist. Prof. Dr. Pavlič, Assist. Prof. Dr. Dahle, Dr. Žigon, Prof. Dr. Petrič.



Slika 6. Dekanja prof. dr. Nataša Poklar Ulrih s tremi letošnjimi nagrajenci Jesenkovih nagrad: dr. Jure Žigon (levo), Anja Kos, prejemnica Jesenkove nagrade za najboljšo diplomantko magistrskega študija (desno ob dekanji) in prof. dr. Jurij Diaci, prejemnik Jesenkove nagrade za življenjsko delo (desno)

Figure 6. The dean, Prof. Dr. Nataša Poklar Ulrih, with this year's three recipients of the Jesenko Awards: Dr. Jure Žigon (left), Anja Kos, recipient of the Jesenko Award for the best graduate of MSc studies (on the right side of the dean) and Prof. Dr. Jurij Diaci, recipient of the lifetime achievement Jesenko Award.

med Jesenkove nagrajence gotovo uvrstil zasluženo (slika 6). Vsi na Oddelku za lesarstvo smo ponosni, da imamo v svoji sredini takega sodelavca kot je dr. Žigon in veseli, da lahko z njim delimo čast Jesenkove nagrade (slika 7).

The Jesenko Awards represent the Biotechnical Faculty's highest recognitions for pedagogical, research and professional achievements, as well as for economic and general social progress in the field of biotechnical sciences in Slovenia. Established in 1973, the Biotechnical Faculty honours up to three individuals a year with the Jesenko Award for Lifetime Achievement, for the Best Doctoral Graduate, and for the Best Master's Degree. The presentation of the award for the best doctorate to this year's recipient, Dr. Jure Žigon, is shown in Figure 1.

Dr. Žigon was born in Ljubljana, where he attended primary school, followed by the wood-

working high school, before he began his studies in Wood Science and Technology at the Biotechnical Faculty of the University of Ljubljana, which he finished in 2012 (B.Sc.) and 2014 (M.Sc.).

The primary area of Dr. Žigon's investigations is the field of wood science and technology, although he is active in a variety of other scientific fields across the University of Ljubljana and beyond. His published research includes work on wood coatings, adhesion and weathering, bonding of wood and other materials, organic and inorganic surface modification of wood, liquefaction of wood, resistance against fungi, wood microstructures, 3D printing, and even adhesion of bacteria on various lignocellulosic substrates.

Dr. Žigon finished his doctorate with an exceptional bibliography, presenting 31 original scientific publications, one review article, one patent appli-

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Slika 7. Dr. Jure Žigon, prejemnik Jesenkove nagrade za najboljšega diplomanta doktorskega študija 3. stopnje 2021.

Figure 7. Dr. Jure Žigon, recipient of the Jesenko Award for the best doctoral studies graduate in 2021.

cation and a number of other published works and scientific successes. Out of these, 13 publications are a direct part of the doctoral dissertation. In spite of his youth, he is already internationally recognised in the field of wood science and technology, both through his published works as well as through international scientific exchanges, including work performed at six scientific institutions in four European countries (Figs. 2 & 3).

Dr. Žigon's doctorate focused on a technology that was only recently introduced at the Department of Wood Science and Technology – the utilisation of non-thermal plasma discharges. Together with his mentor, Assist. Prof. Dr. Sebastian Dahle, Dr. Žigon developed and built a plasma device with novel operating principle for wood treatments, utilising the wooden work pieces like electrodes at a floating potential. This new floating-electrode dielectric barrier discharge plasma successfully modified wood surfaces for increased hydrophilicity and

compatibility with water-based coatings. Although these modifications were not permanent, they were found to last for durations long enough to be useful for various applications, including wood finishing with indoor and outdoor coatings as well as improved adhesive bonding.

In addition to scientific research, Dr. Žigon is actively engaged in the daily activities at the Department of Wood Science and Technology. His responsibilities range from operating analytical equipment like the department's Scanning Electron Microscope, to testing activities for commercial partners and technical activities in the department's laboratories and workshop, including practical carpenter skills and the construction and building of various wooden products in the frame of research projects and for pedagogical purposes. Moreover, Dr. Žigon participates in public relations activities, including events for pupils (Fig. 4), in teaching experimental courses and in support of students' diploma work.

Through all his engagement, motivation and scientific excellence, Dr. Žigon has proven an important part of the department's Chair of Adhesives, Wood Composites, Surface Treatment and Construction (Fig. 5) and a worthy recipient among the Jesenko awardees (Fig. 6). Together with the department, we are glad to have such a colleague as Dr. Žigon in our midst, and happy for and with him to have received this well-deserved honour (Fig. 7).

INTERNETNI VIRI

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