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Habilitation thesis title: Surface quality evaluation of wood and wood based composites

Domain: . Forestry Engineering

PUBLICATIONS LIST

RELEVANT PAPERS (ISI)

1. **Gurau L, Irle M. (2017).** Surface Roughness Evaluation Methods for Wood Products: a Review. *Current Forestry Reports* 3(2): 119-131. Wood Structure and Function (S Hiziroglu, section editor). e-ISSN 2198-6436. DOI 10.1007/s40725-017-0053-4. Springer International Publishing, WOS:000407773800004, **IF: 3.548**
2. **Gurau, L., Mansfield-Williams, H, Irle, M. (2014).** Convergence of the robust Gaussian regression filter applied to sanded wood surfaces. *Wood Science and Technology* 48(6): 1139-1154. ISSN: 0043-7719 (Print) 1432-5225 (Online). DOI 10.1007/s00226-014-0663-y, WOS:000343837200004 , **IF:1.92**
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4. **Gurau, L., Mansfield-Williams, H, Irle, M, Cionca, M. (2009).** Form error removal of sanded wood surfaces. *European Journal of Wood and Wood Products (Holz als Roh und Werkstoff)*. Vol.67 (2): 219-227. ISSN 0018-3768 (Print) 1436-736X (Online), Ed. Springer DOI: 10.1007/s00107-009-0310-8; WOS:000267042900015 , **IF:0.838**
5. **Gurau L, Irle M., Campean M, Ispas M, Buchner J. (2017).** Surface quality of planed beech wood (*Fagus sylvatica* L) thermally treated for different durations of time. *BioResources* 12(2): 4283-4301, ISSN: 1930-2126;DOI:10.15376/biores.12.2.4283-4301, WOS:000402883700148, **IF:1.202**
6. **Gurau L, Irle M., Buchner J. (2019).** Surface roughness of heat treated and untreated beech (*Fagus sylvatica* l.) wood after sanding. *BioResources* 14(2): 4512-4531. ISSN: 1930-2126 DOI:10.15376/biores.14.2.4512-4531, WOS:000466449000141, **IF:1.396**
7. **Gurau, L., Petru, A. (2018).** The influence of CO2 laser beam power output and scanning speed on surface quality of Norway maple (*Acer platanoides*), *BioResources*. 13(4): 8168-8183, ISSN: 1930-2126, DOI:10.15376/biores.13.4.8168-8183 , WOS:000454215100073, **IF:1.202**
8. **Gurau L., Ayrilmis N., Benthien J.T., Ohlmeyer M, Kuzman M.K., Racasan S. (2017).** Effect of species and grinding disc distance on the surface roughness parameters of medium-density fiberboard. *European Journal of Wood and Wood Products (Holz als Roh und Werkstoff)* 75(3), 335-346. ISSN 0018-3768 (Print) 1436-736X (Online), Ed. Springer. DOI: 10.1007/s00107-016-1081-7, WOS:000399708300006, **IF:1.401**
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10. **Gurau, L, Timar, M.C., Porojan, M., Ioras, F. (2013).** Image processing method as a supporting tool for wood species identification. *Wood and Fibre Science*, 45(3): 1-11, ISSN 0735-6161, WOS:000322430500008, **IF:0.875**

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PATENTS (ISI Web of Knowledge)

1. (2013) Patent Number(s): RO128819-A0, *Panel, which is obtained from timber cut from thin sessile oak trunks resulting from forestry thinning operations*, Inventor(s): Olarescu A, Cionca M C, Badescu L A, **Gurau L**, Campean M, Derwent Primary Accession Number: 2013-Q10140, International Patent Classification: B27D-001/00; B27M-001/02; E04F-013/10
2. (2012) Patent Number(s): RO123471-B1, *Panel, has transverse strips, formed of linear blocks carried out from prismatic semifinished items, manufactured from branches by using ecological adhesive*, Inventor(s): Cionca M C, **Gurau L**, Olarescu A, Zeleniuc O, Derwent Primary Accession Number: 2012-P88359, International Patent Classification: B27N-003/04; B32B-005/12; E04C-002/16
3. (2010) Patent Number(s): RO125678-A2, *Eco-panels of cross texture made of branches of deciduous trees, method and process for making the same*, Inventor(s): Cionca M C, Olarescu A, **Gurau L**, Derwent Primary Accession Number: 2010-M69346, International Patent Classification: B27N-003/00; F04C-002/00; F04C-002/12

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1. **Gurau, L.**, Mansfield-Williams, H., Irlle, M. 2012. *A quantitative method to measure the surface roughness of sanded wood products*. Capitol carte pp.1-23 In: **Wood and Wood Products**. Series: Materials and Manufacturing Technology, Edited by J. Paulo Davim, University of Aveiro, Portugal. ISBN: 978-1-62081-973-9, pp 140., Publishing house: NOVA Science Publishers, Inc., Hauppauge, New York, USA
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5. **Gurau, L** 2012. *Tehnologii neconventionale in industria lemnului* (format CD).Ed. Univ. Transilvania, Brasov, pg. 252, ISBN 978-606-19-0094-7
6. Cionca. M. Muscu, I, **Gurau, L.** 2006. *Designing with your Hands. Thinking with your Hands*. ISBN 973-635-836-4. Ed. Univ. Transilvania, Brasov, 110 pg
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6. **Gurau L,** Petru A, Varodi A, Timar M.C. 2017. The influence of CO2 laser beam power output and scanning speed on surface roughness and colour changes of beech (*Fagus sylvatica*). **BioResources** 12(4): 7395-7412, ISSN: 1930-2126, DOI: 10.15376/biores.12.4.7395-7412, WOS:000422879900037
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20. **Gurau, L.**, Mansfield-Williams, H, Irle, M, Cionca, M. 2009. Form error removal of sanded wood surfaces. *European Journal of Wood and Wood Products (Holz als Roh und Werkstoff)*. Vol.67 (2): 219-227. ISSN 0018-3768 (Print) 1436-736X (Online), Ed. Springer DOI: 10.1007/s00107-009-0310-8; WOS:000267042900015
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2. **Gurau, L.** 2015. Replacing outlying wood anatomy in the evaluation of processing roughness data at sanding. *PRO Ligno*, Vol.11(3):11-20,Online ISSN 2069-7430, ISSN-L 1841-4737, Ed. Univ. Transilvania Brasov, indexed CABI
3. Ispas, M., **Gurău, L.**, Răcășan, S. 2014. Study Regarding the Variation of the Thrust Force, Drilling Torque and Surface Delamination with the Feed per Tooth and Drill Tip Angle at Drilling Pre-laminated Particleboard. *PRO Ligno*, 10(4): 40-52, Online ISSN 2069-7430, ISSN-L, Ed. Univ. Transilvania Brasov, indexed CABI
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Date: 1.12.2019

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