

Ph.D. Katarzyna Śmietańska

CONTACT

Department of Mechanical Processing of Wood
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EDUCATION

Occupational titles and science degrees	Date (year)	Institution
Master engineer of wood technology	2006	Faculty of Wood Technology Warsaw University of Life Sciences - SGGW
Doctor of forest sciences in field of wood technology	2011	Faculty of Wood Technology Warsaw University of Life Sciences - SGGW
Master of russian filology	2010	Faculty of Applied Linguistics University of Warsaw

PROFESIONAL COMPETENCE

Position	Date (year)	Institution
Tutor	2011	Department of Mechanical Processing of Wood Faculty of Wood Technology Warsaw University of Life Sciences - SGGW
Assistant professor	2014	Faculty of Wood Technology Warsaw University of Life Sciences - SGGW

DIDACTIC

- Engineering drawing

SCIENCE

Science research:

- Machining quality of wood materials;
- Vision systems;
- Quality control in wood industry;
- Machinability of wood materials;
- Diagnostic tools and cutting process of wood-based panels;
- Machined surface roughness of wood and wood-based materials.

Research projects:

- Research project No 505 10 062500 P0013599: „Basic research on quality control automation of furniture elements using optical measuring technique tools (3D scanning)” 2017, WULS-SGGW; Head;
- Research project No 505 10 062500 M0051099: „Use of vision systems in the automatic quality control of furniture elements” 2015, WULS-SGGW; Head;
- Research project No 505 10 062500 L0044099: „Diagnostic of tools and cutting process of wood-based panels using the current and power of machine tool motors measuring system” 2014, WULS-SGGW; Member;
- Research project No 505 10 06250030: „Monitoring of dimensional accuracy during the MDF milling process by using laser measuring tools” 2012, WULS-SGGW; Head.

SELECTED SCIENCE PUBLICATIONS FROM LAST 6 YEARS:

ORCID: 0000-0001-8705-3700

Górski J., Szymanowski K., Podziewski P., Śmietańska K., Czarniak P., Cyrankowski M., 2019: Use of Cutting Force and Vibro-acoustic Signals in Tool Wear Monitoring Based on Multiple Regression Technique for Compreg Milling. *Bioresources* 14(2): 3379-3388, 2019.

Świdorski B., Kruk M., Wieczorek G., Kurek J., Śmietańska K., Chmielewski L. J., Górski J., Orłowski A., 2018: Feature selection for 'orange skin' type surface defect in furniture elements. In L. Rutkowski et al., editors, *Proc. Int. Conf. on Artificial Intelligence and Soft Computing ICAISC 2018*, volume 10842 of *Lecture Notes in Artificial Intelligence*, pp. 81–91, Zakopane, Poland, 3-7 Jun 2018. doi:10.1007/978-3-319-91262-2_8.

Kruk M., Świdorski B., Śmietańska K., Kurek J., Chmielewski L. J., Górski J., Orłowski A., 2017: Detection of 'orange skin' type surface defects in furniture elements with the use of textural features. In K. Saeed, W. Homenda, and R. Chaki, editors, *Proc. 16th IFIP TC8 Int. Conf. Computer Information Systems and Industrial Management Applications CISIM 2017*, volume 10244 of *Lecture Notes in Computer Science*, pp. 402–411, Białystok, Poland, 16-18 Jun 2017. Springer, Cham. doi:10.1007/978-3-319-59105-6_34.

Chmielewski L. J., Orłowski A., Wieczorek G., Śmietańska K., Górski J., 2017: Testing the limits of detection of the 'orange skin' defect in furniture elements with the HOG features. In N.T. Nguyen, S. Tojo, et al., editors, *Proc. 9th Asian Conference on Intelligent Information and Database Systems ACIIDS 2017, Part II*, volume 10192 of *Lecture Notes in Artificial Intelligence*, pp. 276–286, Kanazawa, Japan, 3-5 Apr 2017. Springer. doi:10.1007/978-3-319-54430-4_27.

Polewska N., Górski J., Śmietańska K., 2017: Critical to Quality parameters control on UV roller coating line for wooden components of furniture – UV lamp energy and peak. *Annals of Warsaw University of Life Sciences - SGGW, Forestry and Wood Technology*, No 99, 55-60, 2017.

Mitas P., Śmietańska K., Górski J., 2017: Сканирование искусственных шпонов при помощи 3D-структурированных световых сканеров. *Annals of Warsaw University of Life Sciences - SGGW Forestry and Wood Technology*, No 101, 66-70, 2017.

Kurek J., Kruk M., Osowski S., Hoser P., Wieczorek G., Jegorowa A., Górski J., Wilkowski J., Śmietańska K., Kossakowska J., 2016: Developing automatic recognition system of drill wear in standard laminated chipboard drilling process. *Bulletin of the Polish Academy of Sciences Technical Sciences*, volume 64, No. 3, 633-640, 2016. doi: 10.1515/bpasts-2016-0071.

Chmielewski L. J., Śmietańska K., Mitas P., Orłowski A., Górski J., Gawdzik G., Janowicz M., Wilkowski J., Podziewski P., 2015: Defect detection in furniture elements the Hough Transform applied to 3D data. *The 9th International Conference on Computer Recognition Systems. Advances in Intelligent Systems and Computing* 403: 631-640.

Chmielewski L. J., Orłowski A., Śmietańska K., Górski J., Krajewski K., Janowicz M., Wilkowski J., Kietlińska K., 2015: Detection of surface defects of type 'orange skin' in furniture elements with conventional image processing. *Image and Video Technology, Proc. PSIVT 2015 Workshops*, Auckland, New Zealand, 23-27 November 2015, volume 9555, 26-37. doi:10.1007/978-3-319-30285-03.