Ph.D. Paweł Czarniak

CONTAT

Department of Wood Mechanical Processing
Institute of Wood Sciences and Furniture
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EDUCATION

Occupational titles and science degrees	Date (year)	Institution
Master engineer of Wood technology	1987	Faculty of Wood Technology Warsaw University of Life Sciences - SGGW
Doctor of forest sciences in field of wood technology	2009	

PROFESIONAL COMPETENCE

Position	Date (year)	Institution
Internship in a carpentry workshop	1988	Zygmunt Dzierla and son – Artistic Furniture
Own business	1989-1998	
Technologist in different factories in Wood Industry	1999-2003	
Science and technology specialist	2004-2011	Warsaw University of Life Sciences - SGGW Department of Wood Mechanical Processing, Faculty of Wood Technology
Assistant	2011	

DIDACTIC

- Technical metrology and measurement systems

SCIENCE

Science research::

- diagnostics of the cutting process of wood materials
- machinability of wood materials and processing quality
- applications of plasma methods to modify wood materials
- Tool coatings applied by plasma methods for wood materials processing

Research and didactic projects:

- 07.2019 - Two week's training stay as part of the Erasmus+ training program on the use of plasma techniques at the Pascal Institute in Clermont-Ferrand)
- 09/10.2018 - A month's stay at the Pascal Institute in Clermont-Ferrand as a visiting professor
- 11/12.2015 - A month's stay in Uzbekistan as part of the Erasmus Mundus program at the University of Urgench

- 11/12.2014 - A month's STSM scientific stay of the year (Short Time Scientific Mission) as part of COST ACTION 1006 in Portugal in Porto regarding plasma plating of wood materials
- Multiple teaching trips under the Erasmus + program at most universities with which the Faculty of Wood Technology has signed contracts (Slovakia, Czech Republic, Romania, Turkey, France, Germany)
- Participation in many training sessions, conferences and workshops organized by ACTION E35, FP0904, FP1001 and FP1006 (Italy, England, France, Norway, Switzerland, Greece)

Cooperation:

- Science Institutions in Poland: Warsaw Technical University, Poznań University of Life Science, Silesian Intercollegiate Education and Interdisciplinary Research Center in Chorzów.
- Research Science Institutions abroad: Institute Josepha Stefana w Ljubljana, Institute Blaise Pascal in Clermond-Ferrand, Institute of Technology in Cluny (France)

RESEARCH OFFER AND EXPERT ASSESSMENTS

- **Durability tests** in the field of woodworking tools
- **Assessment** of the machinability of innovative wood materials
- **Verification of innovative projects** in the field of mechanical treatment of wood materials and implementation studies

SELECTED SCIENCE PUBLICATIONS FROM LAST 7 YEARS

ORCID: **0000-0001-8759-7679**

Laszewicz K., Górski J., Wilkowski J., Czarniak P. „Analysis of dimensional accuracy of MDF milling process". Wood Research 2013, 58(3), 451-464.

Wilkowski J., Borysiuk P., Górski J., Czarniak P. „ Relative machinability indexes of wood particle boards bonded with waste thermoplastics – Experimental study based on drilling torque and thrust force measuring " Drewno : prace naukowe, doniesienia, komunikaty 2013, Vol. 56, nr 190, 139-144

Rogoziński T., Wilkowski J., Górski J., Czarniak P.,., Podziewski P., Szymanowski K. "Dust creation in CNC drilling of wood composites" BioResources 2015, Vol. 10, nr 2, 3657-3665

Czarniak P., Wilkowski J., Górski J., Borysiuk P. "Impact of different wood based materials treatments on surface quality assessed by contact angle and NIR spectroscopy" Advances in modified and functional bio-based surfaces : proceedings : COST Action FP1006 : Bringing new functions to wood through surface modification : 8-9 April, 2015, Thessaloniki, Greece. 9-11.

Rogoziński T., Wilkowski J., Górski J., Szymanowski K., Podziewski P., Czarniak P: "Fine particles content in dust created in CNC milling of selected wood composites" Wood and Fiber Science 2017, Vol. 49(4), 461-469.

Perisse F., Menecier S., Duffour E., Vacher D., Monier G., Destrebecq P.J., Czarniak P., Górski J., Wilkowski J: "MDF treatment with a Dielectric Barrier Discharge (DBD) torch" International Journal of Adhesion and Adhesives 2017, Vol. 79, 18-22

Podziewski P., Górski J., Szymanowski K., Czarniak P: "Relative machinability of wood-based boards in the case of drilling - experimental study" BioResources 2018, Vol. 13(1), 1761-1772.

Kowaluk G., Szymanowski K., Kozłowski P., Kukuła W., Sala C., Robles E., Czarniak P: "Functional Assessment of Particleboards Made of Apple and Plum Orchard Pruning" Waste and Biomass Valorization 2019, Vol 10: DOI: 10.1007/s12649-018-00568-8

Podziewski P., Górski J., Szymanowski K., Czarniak P: "Use of Cutting Force and Vibro-acoustic Signals in Tool Wear Monitoring Based on Multiple Regression Technique for Compreg Milling" Bioresources 2019 14(2): 3379-3388. DOI: 10.15376/biores.14.2.3379-3388

Wilkowski J., Barlak M., Werner Z., Zagórski j., Czarniak P., Szymanowski K: Technical note: Lifetime improvement and the cutting forces in nitrogen-implanted drills during wood based materials drilling. Wood and Fiber Science 2019 51(2): 1-12

Czarniak P., Szymanowski K., Wilkowski J., Górski J: "Machinability characterization of solid wood with scratching and drilling techniques" Wood Research 2019, 64(4): 719-730

More information on my websites:

http://pawel_czarniak.users.sggw.pl/
http://www.researchgate.net/profile/Pawel_Czarniak/

Aktualizacja danych: styczeń 2020 r.