

### Ph.D. Jacek Wilkowski, assistant professor

#### CONTACT

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#### **EDUCATION**

Occupational titles and science degrees	Date (year)	Institution
Master engineer of forestry	2001	Faculty of Forestry
<b>Doctor</b> of forest sciences in field of wood technology	2007	Faculty of Wood Technology
		Warsaw University of Life Sciences - SGGW

#### **PROFESIONAL COMPETENCE**

Position	Date (year)	Institution	
Assistant professor	2007	Faculty of Wood Technology	
Assistant professor	2008	Warsaw University of Life Sciences - SGGW	
(with Ph.D)			

Also:

- in years 2013 – 2019 head of Division of Mechanization and Automatization in Woodworking Industry

- since October 2019 head of Department of Mechanical Processing of Wood WULS-SGGW

#### SELECTED CURRENT FUNCTIONS

- member of International Society of Wood Science and Technology (SWST) <a href="https://www.swst.org">https://www.swst.org</a>
- member of Wood Based Panels Producers Association of Poland <u>http://sppd.pl/</u>
- member of Association of Foresters and Wood Technologists <u>http://www.sitlid.pl/</u>
- member of the scientific board and the editorial board of journal "Biuletyn Informacyjny Ośrodka Badawczo-Rozwojowego Przemysłu Płyt Drewnopochodnych w Czarnej Wodzie" - <u>http://biuletyn.online/index.html</u>
- member of the reviewers board of quarterly Annals Warsaw University of Life Sciences Forestry and Wood Technology <a href="http://wtd.sggw.pl/Content/annals-wuls.html">http://wtd.sggw.pl/Content/annals-wuls.html</a>
- expert of National Information Processing Institute <u>http://www.opi.org.pl/</u>
- evaluator of National Centre for Research and Development <u>http://www.ncbir.pl/</u>

#### DIDACTIC

- the lectures: Operation of machine tools and cutting tools in furniture manufacturing, CNC machine tools programming, CAM systems in furniture production, Diagnostics and supervision of manufacturing systems, Inner transport devices in wood industry..
- training course: programming and operating CNC machine tools used in furniture industry http://jacek\_wilkowski.users.sggw.pl/kurs.html.

### SCIENCE

### Science research:

- modification of surface layer of cutting tools for wood materials machining with beam methods (ion implantation, plasma, electron and laser beam) in order to increase of tool life;
- wear mechanisms of cutting tools during of wood-based panels machining;
- diagnostics and supervision of wood cutting process for CNC machine tools;
- quality of machining (dimensional accuracy, shape accuracy, surface roughness, edge quality) of wood materials on CNC machine tools.

# Research projects:

- International co-financed project "Effect of the heating during nitrogen ion implantation on the life-time of WC-Co tools used in wood-based materials machining" (grant of the Polish Ministry of Education and Science No 5151/HZDR/2020/0). Parts of research were supported by IBC at the Helmholtz-Zentrum Dresden-Rossendorf e. V., a member of the Helmholtz Association (Proposal 20002202-ST); project manager
- Research project: "Improving process and material efficiency in the sawmill industry", funded by the National Centre for Research and Development, under the program "Environment, Agriculture and Forestry" BIOSTRATEG, under contract No. BIOSTRATEG 3/344303/14/NCBR/2018, implemented in 2019; **researcher**
- International co-financed project "The effect of nitrogen ion implantation on the properties of WC-Co composites used in wood-based materials machining" (grant of the Polish Ministry for Science and Higher Education No W83/HZDR/2017). Parts of research were supported by IBC at the Helmholtz-Zentrum Dresden-Rossendorf e. V., a member of the Helmholtz Association (Proposal 17001078-ST); **project manager**
- Rector's research project No 505-10-06250050 "Development of a methodology for laboratory testing of wood machinability by drilling with constant pressure on the tool" implemented in 2011; **project manager**
- Research project No N N309 007537 "Machinability of wood-based materials" implemented in the years 2009-2013, agreement with the Ministry of Science and Higher Education No 0075/B/P01/2009/37; researcher
- Rector's research project No 504-10-06250011 "Research on the possibility of using a vision quality control system during drilling of wood-based materials" implemented in 2008; **project manager**
- Research project No 3 P06L 02524 "Basics of automatic diagnostics of tool condition and cutting process in wood and wood materials machining" implemented in the years 2003-2006 (KBN contract No. 0753/P06/2003/24); researcher

# **Cooperation:**

- Research centers, e.g.: National Centre for Nuclear Research (NCBJ) Świerk in Otwock, Helmholtz-Zentrum Dresden-Rossendorf (HZDR), Warsaw University of Technology, University of Life Sciences in Poznań, Research & Development Centre for Wood-Based Panels Sp. z o. o. in Czarna Woda;
- Industry, e.g.: Homag, Leitz, Teknika, Fanum, Leuco;

# **RESEARCH OFFER AND EXPERT ASSESSMENTS**

- complaints and arguments concerning of cutting tools life during wood and wood-based panels machining, quality of product and machining process for CNC machine tools;
- assessment and comparative analysis of wood products obtained in various manufacturing technologies;
- assessment of projects in the field of innovation and implementation studies (new technological solutions introduced to companies, increasing market competitiveness);
- assessment of woodworking quality (edge quality, dimensional accuracy, shape accuracy, surface geometric accuracy).

SELECTED SCIENCE PUBLICATIONS FROM LAST 3 YEARS: ORCID: 0000-0001-5798-6761 The list of author scientific publications is available in the following bibliometric databases: <u>Knowledge Base of the Warsaw University of Life Sciences - SGGW</u> <u>Google Scholar</u>

More information on my websites: http://jacek\_wilkowski.users.sggw.pl/ http://www.researchgate.net/profile/Jacek\_Wilkowski/ https://scholar.google.pl http://independent.academia.edu/ https://www.mendeley.com https://publons.com/researcher/1886842/jacek-wilkowski/

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