

Magdalena Niemczewska-Wójcik

Academic degrees : doctor habilitatus in Engineering, prof. of CUT

Position : Professor

Engineering - technical field

Discipline Mechanical engineering

Academic qualifications:

Vice-Rector, Member of the Faculty of Mechanical Engineering Council and the Scientific Council for the Discipline of Mechanical Engineering at Cracow University of Technology.
Member of the Committee on Machine Building of the Polish Academy of Sciences, serving as Chair of the International Cooperation Working Group.

Membership in professional and academic boards:

Expert for the National Centre for Research and Development (NCBR).
Member of scientific societies, including the Polish Tribological Society, the Polish Society for Production Management, and the Polish Scientific and Technical Society of Operation and Maintenance.

Academic merits:

The most important selected achievements in scientific activity include one scientific monograph and four book chapters, three of which were published internationally. The research output also comprises more than 15 papers published in JCR-indexed journals, including Wear, Archives of Civil and Mechanical Engineering, Scanning, Measurement, Journal of the Australian Ceramic Society, Materials, and Powder Technology, as well as 21 national scientific papers and six research reports. Bibliometric indicators include a cumulative Impact Factor (IF) of 35.109; according to the Web of Science, an h-index of 8 and 136 citations; and according to Scopus, an h-index of 9 and 156 citations. Scientific service activities include reviewing eight national and five international doctoral dissertations, as well as preparing more than 80 peer reviews for manuscripts submitted to international JCR-indexed journals (over 15 journals) and national journals. Academic supervision achievements include serving as the supervisor of two ongoing PhD projects and as an auxiliary supervisor in three successfully completed doctoral dissertations. Research project involvement includes leading two research projects as Principal Investigator and participating as a team member in four additional projects. Participation in 21 scientific conferences (13 international and 8 national) and served on the organizing committees of five conferences (three international and two national). Research internships have been completed at several national and international institutions, including the Łukasiewicz Research Network – Institute for Sustainable Technologies in Radom, the V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine in Kyiv, and the NTB Interstate University of Applied Sciences of Technology Buchs in Switzerland. Scientific achievements have been recognized with seven awards, including four individual Rector's Awards, two team Rector's Awards, and one individual Dean's Award.

Professional qualifications/language skills:

-

Research field:

The subject matter of the research activities falls within the discipline of Mechanical Engineering. Due to the multidisciplinary nature of the scientific problems addressed, the research combines topics from materials engineering, including the characterization of difficult-to-machine materials and special-purpose materials used, among others, in medical applications; manufacturing engineering, encompassing technological investigations and manufacturing processes, particularly the formation of the technological surface layer (TSL) during finishing operations; surface metrology, involving stereometric analyses of both manufactured surfaces (TSL) and surfaces subjected to service conditions, referred to as the exploited surface layer (ESL); and Tribology, including studies of friction and wear processes, tribological characteristics, wear mechanisms, and wear products. The research is therefore focused on understanding the relationships between material properties, manufacturing technologies, surface integrity, and the operational performance of engineering components.

Address

Cracow University of Technology,
Faculty of Mechanical Engineering

ul. Warszawska 24
31-155 Kraków, Polska
phone: +48 501456836
e-mail: magdalena.niemczewska-wojcik@pk.edu.pl

Useful links:

https://orcid.org/0000-0001-9902-478X
https://www.scopus.com/authid/detail.uri?authorId=36462640900
http://suw.biblos.pk.edu.pl/userHomepage&uId=18271&rel=BPP-author
https://repozytorium.biblos.pk.edu.pl/resources/25398