

Iwona Krzyżewska, PhD Eng.

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The scientific fields of interests:

Transport, Chemistry, Nanotechnology, Nanomaterials, Engineering, Materials science

Doctor of engineering in the scientific discipline of civil engineering and transport (2019 Silesian University of Technology, Department of Transport), master of chemistry (2011, Silesian University of Technology, Chemistry Department). She worked in the environmental analysis and waste management team at the Institute of Environmental Engineering Polish Academy of Sciences. She has worked on the impact of nanomaterials on the aquatic environment. She provided support for innovative transport company management tools, concerning GPS vehicle positioning on the map and telematics solutions such as Navi24, Scania Fleet Management, K2GPS, DBK and Map Hoogs as well as Transport Exchanges: TimoCom, Trans.eu. She was responsible for determining routes for transport orders and arranging permits for the implementation of oversize transport, as well as planning departure and arrival times to and from the company's transport base. She is working on WSB University, on Department of Transport and Information Technology. She is currently project secretary and specialist for integrated interchanges in the project "Barrier free transfer" of the National Centre for Research and Development, and in project team Exchange and smart solution between V4 and EU in energy, environment and life. She conducts research on nanofluids and their application in the automotive industry as coolants and fuel additives. She is also involved in research and development work in the field of rail transport, which involves the creation of documentation for a safety management system and a maintenance management system for rail transport. She provides teaching on computer and numerical methods in engineering design (AutoCAD, Catia, Ansys), basics of PBL, universal design (including people with special needs) and nanotechnology in vehicle exploitation.

Publications

Boncel S., Kyzioł-Komosińska J., Krzyżewska I., Czupioł J., *Interactions of carbon nanotubes with aqueous/aquatic media containing organic/inorganic contaminants and selected organisms of aquatic ecosystems – A review*. *Chemosphere* 136, 211-221. 2015

Kyzioł-Komosińska J., Rosik-Dulewska Cz., Pająk M., Czupioł J., Dzieniszewska A., Krzyżewska I., 2015: *Sorption of Acid Green 16 from aqueous solution onto low moor peat and smectite clay co-occurring in lignite deposits*. *Annual Set The Environment Protection (Rocznik Ochrona Środowiska)*, 17(1), 165-187.

Krzyżewska I., Kyzioł-Komosińska J., Rosik-Dulewska C., Czupioł J., *Inorganic nanomaterials in the aquatic environment: behavior, toxicity, and interaction with environmental elements*. *Archives of Environmental Protection* 42(1), 87-101, 2016.

Boncel S., Kolanowska A., Kuziel A., Krzyżewska I., *Carbon Nanotube Wind Turbine Blades - How Far Are We Today from Laboratory Tests to Industrial Implementation?* *ACS Applied Nano Materials*, 2018, 1, 12, 6542-55.

Szczucka-Lasota B., Kamińska J., Krzyżewska I., Wilczyński K., *Impact of The Installed Tire Pressure Monitoring System (TPMS) In Heavy Transport Vehicles on Tread Wear Height in Tires*, *Proceedings of the 36th International Business Information Management Association (IBIMA)*, ISBN: 978-0-9998551-5-7, 4-5

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November 2020, Granada, Spain, p 13965-13978.

Krzyżewska I., *Problem Identification in Planning Transport Process of Break Bulk Cargo, Proceedings of the 37th International Business Information Management Association (IBIMA)*, ISBN: 978-0-9998551-6-4, 30-31 May 2021, Cordoba, Spain, p 1794-1802.

Krzyżewska I. 2021, 38th IBIMA. *Nanofluids – How Far we are in vehicles exploitation. 38th IBIMA Conference: 23-24 November 2021*, Seville, Spain, ISBN: 978-0-9998551-7-1, ISSN: 2767-9640.

Szczucka-Lasota B., Kamińska J., Krzyżewska I., *Logistyka związana z transportem ponadgabarytowych elementów wiatraków prądotwórczych. Autobusy Technika, Eksploatacja, Systemy Transportowe* 12, 2017 p.1625-1629 ISSN 1509-5878.

Szczucka-Lasota B., Wolniak R., Krzyżewska I., *Financial Benefits of Logistics Outsourcing: A study of selected hipermarket. Organization & Management Scientific Quarterly* 1, 45, 2019

Szczucka-Lasota B., Kamińska J., Krzyżewska I., *Influence Of Tire Pressure On Fuel Consumption In Trucks With Installed Tire Pressure Monitoring System (TPMS). Scientific Journal of Silesian University of Technology. Series Transport* 103:167-181, 2019.

Krzyżewska I., *Problems in organization of the transport process on the international market, Scientific Journal of Silesian University of Technology. Series Transport (SJSUTST)*, 112, 2021, 113-123.

Projects

NCN project: „Studies on release, interaction with aquatic environment and toxicity of nanomaterials during their life cycle”

Project Secretary/Specialist for Integrated Interchanges - NCBiR Project Things are for People 0050/2020 „Barrier Free Transfer - Integrated Interchanges Accessibility Management System”

Exchange and smart solution between V4 and EU in energy, environment and life. Visegrad project. 2020- until now

NCBiR Project "EduLider - development of the WSB Academy for the region".2020- until now

Project NCN: Studies on the release, interaction with the aquatic environment, and toxicity of nanomaterials during their life cycle.

Projekt NCBiR competition „Rzeczy są dla ludzi”– Przesiadka bez barier – Accessibility system of integrated interchanges, 2021-nadal.

Visegrad project – Exchange and smart solution between V4 and EU in Energy, environment and life. 2020 – until now.

Project NCBiR "EduLider – rozwój Akademii WSB dla regionu"2020 – until now