



ACADEMIC TEACHER PROFESSIONAL EXPERIENCE

DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

1. Basic information

Name, surname:	Robert Król
Grade / Title:	Associate Professor
Scientific discipline	inżynieria środowiska, górnictwo i energetyka / environmental engineering, mining, and energy
Faculty:	W6 Wydział Geologii Geoinżynierii, Górnictwa i Geologii / Faculty of Geoengineering, Mining and Geology
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Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.)	Scopus ; ReaserchGate

2. Publication record

Up to 10 most important papers published over the period of previous 10 years.

No.	Description (authors, publication title, journal / conference, DOI)	Publication year
1.	Bortnowski, Piotr B; Gładysiewicz, Lech; Król, Robert; Ozdoba, Maksymilian A. <i>Models of transverse vibration in conveyor belt - investigation and analysis</i> / Energies. 2021. ISSN: 1996-1073. IF: 3.252.	2021
2.	Bortnowski, Piotr B; Kawalec, Witold; Król, Robert; Ozdoba, Maksymilian A. <i>Identification of conveyor belt tension with the use of its transverse vibration frequencies</i> / Measurement (London). 2022. ISSN: 0263-2241;1873-412X. IF: 5.131.	2022
3.	Doroszuk, Błażej; Król, Robert. <i>Industry scale optimization : hammer crusher and DEM simulations</i> / Minerals. 2022. ISSN: 2075-163X. IF: 2.818.	2022
4.	Bortnowski, Piotr B; Król, Robert; Nowak-Szpak, Anna; Ozdoba, Maksymilian A. <i>A preliminary studies of the impact of a conveyor belt on the noise emission</i> / Sustainability. 2022. ISSN: 2071-1050. IF: 3.889.	2022
5.	Bortnowski, Piotr B; Kawalec, Witold; Król, Robert; Ozdoba, Maksymilian A. <i>Types and causes of damage to the conveyor belt - review, classification and mutual relations</i> / Engineering Failure Analysis. 2022. ISSN: 1350-6307;1873-1961. IF: 3.634.	2022
6.	Bortnowski, Piotr B; Król, Robert; Ozdoba, Maksymilian A. <i>Roller damage detection method based on the measurement of transverse vibrations of the conveyor belt</i> / Eksploatacja i Niezawodność - Maintenance and Reliability. 2022. ISSN: 1507-2711. IF: 2.742.	2022
7.	Bortnowski, Piotr B; Gładysiewicz, Lech; Król, Robert; Ozdoba, Maksymilian A. Gładysiewicz, Adam. <i>Conveyor intermediate TT drive with power transmission at the return belt</i> / Energies. 2022. ISSN: 1996-1073. IF: 3.252.	2022
8.	Bortnowski, Piotr B; Król, Robert; Ozdoba, Maksymilian A. Gondek, Horst; Marasová, Daniela. <i>Detection of blockages of the belt conveyor transfer point using an RGB camera and CNN autoencoder</i> / Energies. 2023. ISSN: 1996-1073. IF: 3.252.	2023



9.	Dąbek, Przemysław P; Wróblewski, Adam; Wodecki, Jacek; Bortnowski, Piotr B; Ozdoba, Maksymilian A; Król, Robert; Zimroz, Radosław. <i>Application of the methods of monitoring and detecting the belt mistracking in laboratory conditions / Applied Sciences</i> . 2023. ISSN: 2076-3417. IF: 2.838.	2023
10.	Bortnowski, Piotr B; Doroszuk, Błażej; KRÓL, Robert; Marasová, Daniela; Moravic, Marek; Ozdoba, Maksymilian A. <i>Forecasting blockades of conveyor transfer points based on vibrodiagnostics</i> . Measurement (London). 2023. ISSN: 0263-2241; 1873-412X. IF: 5.131.	2023

3. Projects and grants

List of the most important 5 projects/grants with basic description including: title, source(s) of funding, name of the call, role in the project (e.g., principal investigator).

1.	Role in the project (e.g., principal investigator, work package leader, etc.)	principal investigator
	Project title	I2Mine Innovative Technologies and Concepts for the Intelligent Deep Mine of the Future/ Innowacyjne technologie dla głębokiej kopalni przyszłości wykorzystujące inteligentne narzędzia zarządzania
	Sources of funding	7 Program Ramowy UE
	Name of the call	
	Implementation period	2013-2015
2.	Role in the project (e.g., principal investigator, work package leader, etc.)	work package leader
	Project title	DISIRE Integrated Process Control Based on Distributed in situ Sensors into Raw Material and Energy Feedstock /Zintegrowane sterowanie procesami oparte na sieci inteligentnych czujników dla zaspokajania zapotrzebowania na surowce i energię
	Sources of funding	Horyzont 2020
	Name of the call	
	Implementation period	2015-2017
3.	Role in the project (e.g., principal investigator, work package leader, etc.)	principal investigator
	Project title	AMICOS Autonomous Monitoring and Control System for Mining Plants
	Sources of funding	European Institute of Innovation and Technology Raw Materials
	Name of the call	
	Implementation period	2020-2022
4.	Role in the project (e.g., principal investigator, work package leader, etc.)	principal investigator
	Project title	ECHO Electrical Computerised Hammering Operator
	Sources of funding	European Institute of Innovation and Technology Raw Materials
	Name of the call	KAVA Call 8 - Upscaling and RIS Acceleration
	Implementation period	2022-2024



5.	Role in the project (e.g., principal investigator, work package leader, etc.)	principal investigator
	Project title	<i>Linowy napęd pośredni zwiększający funkcjonalność przenośników</i>
	Sources of funding	NCBiR
	Name of the call	IniTech
	Implementation period	2010-2013

4. International experience

Brief description of international cooperation and experience (e.g., research stays, cooperation with foreign entities, coordination or participation in international projects or programmes, keynote speeches and presentations delivered at renowned international conferences, visiting professor stays, invited lectures).

No.	Description	Year(s)
1.	czerwiec 2022 – 4 tygodniowy staż naukowy w VSB - Technical University of Ostrava, Faculty of Mechanical Engineering. Staż finansowany z subwencji MNiE na utrzymanie i rozwój potencjału dydaktycznego oraz badawczego na rok 2022; research stays	2022
2.	wrzesień 2022 - 4 tygodniowy staż naukowy w Technical University of Košice (TUKE); Faculty of Mining, Ecology, Process Control and Geotechnologies. Staż finansowany z subwencji MNiE na utrzymanie i rozwój potencjału dydaktycznego oraz badawczego na rok 2022; research stays	2022
3.	8 -10 września 2015, 3 dni, Workshop on Modeling, Sensoring and Control for the DISIRE industrial Processes, during 2 nd Consortium Meeting DISIRE Project, Tarragona, Spain; participation in international project	2015
4	17-19 maja 2016, 3 dni, Workshop on modeling and control of belt conveyor network during the 3 rd Consortium Meeting DISIRE Project, Luleå University of Technology, Sweden; participation in international project	2016
5	13-17 luty 2023 – Program Erasmus+ w ramach "Staff Mobility For Training". Wizyta w Logistics Institute of Industry and Transport, Technical University of Košice (TUKE); research stays	2023

5. Experience in teaching doctoral students

Brief description of experience in teaching doctoral students (e.g., courses in doctoral schools and PhD studies, summer/winter schools for doctoral students, tutorials, trainings, etc.).

No.	Description	Year(s)
1.	Courses in PhD studies: <i>Mining machinery</i>	2017
2.	Courses in PhD studies: <i>Mineral engineering</i>	2019
3.	Courses in doctoral schools and PhD: <i>Discipline reporting seminar ISGE</i>	2021; 2022

6. List of supervised doctoral students

List of all supervised doctoral students that defended the PhD including: name of the student, dissertation title, year of awarding PhD.

No.	Name, surname	Dissertation title	Year of awarding PhD
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1.	Waldemar Kisielewski	<i>Wpływ wybranych parametrów eksploatacyjnych i konstrukcyjnych na opory główne przenośników taśmowych</i>	2016
2.	Maksymilianowi Ozdoba	<i>Modelowanie i identyfikacja drgań poprzecznych taśmy przenośnikowej</i>	2022
3.	Natalia Suchorab-Matuszewska	<i>Klasyfikacja efektywności energetycznej przenośników taśmowych</i>	2023
4.	Mateusz Szczerbakowicz	<i>Projektowanie zbiorników retencyjnych stosowanych w ciągłym systemie transportowym kopalni Rudna z wykorzystaniem nowoczesnych metod numerycznych</i>	2024

7. Prizes and awards

The most important national and international prizes and awards related to research, development and teaching activities.

No.	Description	Year
1.	Rector of the Wrocław University of Science and Technology Award	2008, 2010, 2013, 2014, 2015, 2016, 2018, 2019, 2021, 2022, 2023
2.	Honorary Badge of Merit for Safety in Mining awarded by the President of the State Mining Office	2022
3.	Medal of the Commission for National Education	2021
4.	Honorary Badge of Merit for the Bełchatów Coal Mine	2022
5.	Golden Badge of the Wrocław University of Science and Technology	2019
6.	Honorary Silver Badge for Merit for the Dolnośląskie Province	2018
7.	Silver Cross of Merit awarded by the President of the Republic of Poland	2018
8.	Honorary Silver Badge for Merit for Emergency Mine/Smelter Rescue Service KGHM	2016
9.	The distinction in the Master of Technology Competition of the Federation of Scientific and Technical Associations NOT of the polish copper-mining district	2016
10.	Bronze Medal for Long Service awarded by the President of the Republic of Poland	2016
11.	The distinction in the Master of Technology Competition of the Federation of Scientific and Technical Associations NOT of the polish copper-mining district	2014
12.	Honorary Badge of Merit for the Polish Mining	2014

8. Other significant achievements

Information on other significant achievements related to research, development and teaching activities.

The project DISIRE (H2020) has been awarded by the Solar Impulse Foundation (<https://solarimpulse.com>) by signing on the list of 1000 modern technologies changing the world.



Robert Król scientific activities are closely related to the socio-economic environment. Demonstrates exemplary commitment to the popularization of scientific achievements as part of cooperation with the important mining industry centers and mining companies. He is the author or co-author of over 300 scientific papers, including eleven patents granted, two registered utility models, and about a hundred documented expertise conducted for the Polish mining industry.