



ACADEMIC TEACHER PROFESSIONAL EXPERIENCE

DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

1. Basic information

Name, surname:	Ptak Mariusz
Grade / Title:	PhD, associate professor
Scientific discipline	inżynieria mechaniczna / mechanical engineering
Faculty:	W10 Wydział Mechaniczny / Faculty of Mechanical Engineering
Email address:	mariusz.ptak@pwr.edu.pl
Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.)	www.researchgate.net/profile/Mariusz_Ptak www.linkedin.com/in/ptak-mariusz

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.	Ptak M, Dymek M, Sawicki M, et al (2023) Experimental and computational approach to human brain modelling – aHEAD. Arch Civ Mech Eng 23:218. https://doi.org/10.1007/s43452-023-00758-9	2023
2.	Ptak M, Wilhelm J, Sawicki M, et al (2023) Assessment of child safety on bicycles in baby carriers – The importance of evaluating both head and neck injuries. J Safety Res. https://doi.org/10.1016/j.jsr.2023.02.009	2023
3.	Wdowicz D, Ptak M (2023) Numerical Approaches to Pedestrian Impact Simulation with Human Body Models: A Review. Arch Comput Methods Eng. https://doi.org/10.1007/s11831-023-09949-2	2023
4.	Dołęga-Kozierowski B, Kasprzak P, Lis M, et al (2023) Numerical and physical modeling of breast cancer based on image fusion and artificial intelligence. Breast Cancer Res Treat. https://doi.org/10.1007/s10549-023-07056-1	2023
5.	Ptak M (2019) Method to assess and enhance vulnerable road user safety during impact loading. Appl Sci 9:. https://doi.org/10.3390/app9051000	2019
6.	Fernandes FAO, Alves de Sousa RJ, Ptak M (2018) Head Injury Simulation in Road Traffic Accidents. Springer International Publishing, Cham	2018
7.	Ptak M, Wilhelm J, Sawicki M (2020) Safety analysis of children transported on bicycle-mounted seat during traffic accidents. Int J Crashworthiness 25:. https://doi.org/10.1080/13588265.2019.1626967	2020
8.	Dymek M, Ptak M, Fernandes FAO (2021) Design and Virtual Testing of American Football Helmets—A Review. Arch Comput Methods Eng 29:1277–1289. https://doi.org/10.1007/s11831-021-09621-7	2021
9.	Fernandes F, Alves de Sousa R, Ptak M, Migueis G (2019) Helmet Design Based on the Optimization of Biocomposite Energy-Absorbing Liners under Multi-Impact Loading. Appl Sci 9:735. https://doi.org/10.3390/app9040735	2019
10.	Carmo GP, Dymek M, Ptak M, et al (2023) Development, validation and a case study: The female finite element head model (FeFEHM). Comput Methods Programs Biomed 231:107430. https://doi.org/10.1016/j.cmpb.2023.107430	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.)	Project manager
	Project title	ECOCORK – Educational Development for Sustainable and Eco-friendly Cork Composites in Aerospace Applications;
	Sources of funding	EU
	Name of the call	Cooperation for innovation and the exchange of good practice
	Implementation period	2020-2023
2.	Role in the project (e.g., principal investigator, work package leader, etc.)	Project manager
	Project title	Numerical system of multi-variant human head models for simulating the pathophysiology of craniocerebral injuries
	Sources of funding	NCBR
	Name of the call	LIDER
	Implementation period	2017-2021
3.	Role in the project (e.g., principal investigator, work package leader, etc.)	Contractor
	Project title	Mobile station supplying purified and compressed biogas
	Sources of funding	NCBR
	Name of the call	LIDER
	Implementation period	2012-2015
4.	Role in the project (e.g., principal investigator, work package leader, etc.)	Project manager
	Project title	The influence of structural elements of vehicles with a high bumper reference line on improving the safety of vulnerable road users
	Sources of funding	NCN
	Name of the call	Preludium
	Implementation period	2012-2015
5.	Role in the project (e.g., principal investigator, work package leader, etc.)	Project manager
	Project title	MUKE – vertical farming system
	Sources of funding	Wrocław Academic Center
	Name of the call	Mozart
	Implementation period	2022-2023

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.	Weizmann Institute of Sciences – Department of Brain Sciences (Izreal, Rehovot) - research stays	2023
2.	Aveiro University, Portugal research stays	2019,2022, 2023
3.	Stanford University (USA), VAIL (Palo Alto, USA) - research stays	2012

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.	Research skill - courses in doctoral schools	2021-2023
2.	Finite Element Method - courses in doctoral schools	2021-2023
3.	TRIZ, Design Thinking, Business Model Canvas - trainings	2018-2023

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
1.	Johannes Wilhelm	Injury biomechanics of bicycle-transported children during traffic accidents	2020
2.			
3.			

7. Prizes and awards

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

No.	Description	Year
1.	Winner of the POLITYKA Science Award 2019 – Technical Sciences	2019
2.	30 Creative Wrocław – winner in the "Science"	2020
3.	Participation in the Top 500 Innovators - Science, Management, Commercialization program at Stanford University (USA)	2012

8. Other significant achievements

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

European Commission (Brussels), expert and reviewer of Maria Skłodowska-Curie IF, COFUND, MOBILITY and TRANSPORT applications
AgilePM – certification
IPMA level D - Certified Project Management Associate
School for Business and Education Trainers – certification in team management and group leading