



## ACADEMIC TEACHER PROFESSIONAL EXPERIENCE

### DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

#### 1. Basic information

Name, surname:	Grzegorz Lesiuk
Grade / Title:	PhD. DSc. Eng.
Scientific discipline	Mechanical Engineering
Faculty:	Faculty of Mechanical Engineering
Email address:	grzegorz.lesiuk@pwr.edu.pl
Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.)	<a href="https://www.researchgate.net/profile/Grzegorz-Lesiuk">https://www.researchgate.net/profile/Grzegorz-Lesiuk</a> <a href="https://scholar.google.pl/citations?user=BZH4U34AAA&amp;hl=pl">https://scholar.google.pl/citations?user=BZH4U34AAA&amp;hl=pl</a>

#### 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.	Lesiuk, G., Junik, K., Duda, S., Socha, T., Kula, K., Denisiewicz, A., ... & Correia, J. (2024, January). Prediction of the fatigue lifetime of PUR structural elements using a combined experimental-numerical approach. In <i>Structures</i> (Vol. 59, p. 105822). Elsevier. <a href="https://doi.org/10.1016/j.istruc.2023.105822">https://doi.org/10.1016/j.istruc.2023.105822</a>	2024
2.	Duda, S., Smolnicki, M., Stabla, P., Zielonka, P., Osiecki, T., Gao, C., & Lesiuk, G. (2024). Experimental characterization and modeling of cylindrical CFRP structures under quasi-static multiaxial loading conditions. <i>Thin-Walled Structures</i> , 195, 111364. <a href="https://doi.org/10.1016/j.tws.2023.111364">https://doi.org/10.1016/j.tws.2023.111364</a>	2024
3.	Lesiuk, G., Kucharski, P., Correia, J. A., De Jesus, A. M. P., Rebelo, C., & da Silva, L. S. (2017). Mixed mode (I+ II) fatigue crack growth in puddle iron. <i>Engineering Fracture Mechanics</i> , 185, 175-192. <a href="https://doi.org/10.1016/j.engfracmech.2017.05.002">https://doi.org/10.1016/j.engfracmech.2017.05.002</a>	2017
4.	Lesiuk, G., Szata, M., Rozumek, D., Marciniak, Z., Correia, J., & De Jesus, A. (2018). Energy response of S355 and 41Cr4 steel during fatigue crack growth process. <i>The Journal of Strain Analysis for Engineering Design</i> , 53(8), 663-675. <a href="https://doi.org/10.1177/0309324718798234">https://doi.org/10.1177/0309324718798234</a>	2018
5.	Lesiuk, G., Rymsza, B., Rabięga, J., Correia, J. A., De Jesus, A. M. P., & Calcada, R. (2019). Influence of loading direction on the static and fatigue fracture properties of the long term operated metallic materials. <i>Engineering Failure Analysis</i> , 96, 409-425. <a href="https://doi.org/10.1016/j.engfailanal.2018.11.007">https://doi.org/10.1016/j.engfailanal.2018.11.007</a>	2019
6.	Lesiuk, G. (2019). Mixed mode (I+ II, I+ III) fatigue crack growth rate description in P355NL1 and 18G2A steel using new energy parameter based on J-integral approach. <i>Engineering Failure Analysis</i> , 99, 263-272. <a href="https://doi.org/10.1016/j.engfailanal.2019.02.019">https://doi.org/10.1016/j.engfailanal.2019.02.019</a>	2019
7.	Lesiuk, G. (2019). Application of a New, Energy-Based $\Delta S^*$ Crack Driving Force for Fatigue Crack Growth Rate Description. <i>Materials</i> , 12(3), 518. <a href="https://doi.org/10.3390/ma12030518">https://doi.org/10.3390/ma12030518</a>	2019
8.	Podulka, P., Macek, W., Zima, B., Lesiuk, G., Branco, R., & Królczyk, G. (2023). Roughness evaluation of turned composite surfaces by analysis of the shape of	2023



	autocorrelation function. <i>Measurement</i> , 222, 113640. <a href="https://doi.org/10.1016/j.measurement.2023.113640">https://doi.org/10.1016/j.measurement.2023.113640</a>	
9.	Smolnicki, M., Lesiuk, G., Stabla, P., Pedrosa, B., Duda, S., Zielonka, P., & Lopes, C. C. (2023). Investigation of flexural behaviour of composite rebars for concrete reinforcement with experimental, numerical and machine learning approaches. <i>Philosophical Transactions of the Royal Society A</i> , 381(2260), 20220394. <a href="https://doi.org/10.1098/rsta.2022.0394">https://doi.org/10.1098/rsta.2022.0394</a>	2023
10.	Klusák, J., Horník, V., Lesiuk, G., & Seitzl, S. (2021). Comparison of high-and low-frequency fatigue properties of structural steels S355J0 and S355J2. <i>Fatigue &amp; Fracture of Engineering Materials &amp; Structures</i> , 44(11), 3202-3213. <a href="https://doi.org/10.1111/ffe.13580">https://doi.org/10.1111/ffe.13580</a>	2021

### 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.)	PI
	Project title	New generation of hybrid composite rebars for concrete and soil reinforcement
	Sources of funding	NCBIR
	Name of the call	LIDER
	Implementation period	2020-2023
2.	Role in the project (e.g., principal investigator, work package leader, etc.)	PI
	Project title	Interfacial strength examination of new hybrid composite materials using fracture mechanics approach
	Sources of funding	NAWA
	Name of the call	BILATERAL COOPERATION POLAND-UKRAINE
	Implementation period	2019-2020
3.	Role in the project (e.g., principal investigator, work package leader, etc.)	PI
	Project title	Analysis of the fatigue crack closure effect under mixed mode loading conditions
	Sources of funding	NCN
	Name of the call	MINIATURA
	Implementation period	2019
4.	Role in the project (e.g., principal investigator, work package leader, etc.)	Pi
	Project title	INNOVATIVE METHODS FOR REPAIRS OF CRACKS IN STEEL RAILWAY INFRASTRUCTURE
	Sources of funding	WCA
	Name of the call	MOZART
	Implementation period	2016-2017



5.	Role in the project (e.g., principal investigator, work package leader, etc.)	WP LEADER (WP3)
	Project title	Studies on the effect of self-healing organic-inorganic sol-gel layers on corrosion resistance and fatigue of steel in the VHCF range
	Sources of funding	NCN
	Name of the call	OPUS
	Implementation period	2022-2024

#### 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.	Visiting Professor TU BRNO (CZECH REPUBLIC) 2months	2024
2.	6 short term mobilities University of Porto ERASMUS+ teaching	2018-2024
3.		

#### 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 Skills	2020,2021,2022,2023,2024
2.		
3.		

#### 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.	Krzysztof Junik	<b><i>Impact of the hardness on the fatigue and fracture properties of the rigid PUR elastomers used in automotive engineering</i></b>	2023
2.	Michał Smolnicki	Description of fracture behaviour of thermoplastic FML material under mixed-mode loading conditions	2023
3.	Karolina Głowacka	<b><i>Zastosowanie hipotez wytrzymałościowych w materiałach kompozytowych poddanych prostym stanom obciążenia</i></b>	2023



4.	Paweł Stabla	<b>Experimental-numerical analysis of the mosaic pattern influence on the strength of filament-wound CFRP composite structures</b>	2023
5.	Felipe Fiorentin	<b>High-Cycle and Ultra-High Cycle Fatigue Behaviour of Directed Energy Deposited Inconel 625</b>	2023
6.	Victor Hugo Ribeiro	<b>MODELLING OF THE FATIGUE CRACK INITIATION AND PROPAGATION BEHAVIOUR IN METALS AND ALLOYS</b>	2021

## 7. Prizes and awards

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

No.	Description	Year
1.	Top 2% most cited researchers of the World (WoS)	2021
2.	Medal FEUP - Faculdade De Engenharia University of Porto	2023
3.	ESIS (European Structural Integrity Award) - Robert Moskvic Award	2023
4.	TOP1% PEER REVIEWER AWARD (CROSS-FIELD) – Web of Science and Publons Group	2021
5.	TOP1% PEER REVIEWER AWARD (MATERIALS SCIENCE) – Web of Science and Publons Group	2021
6.	ESIS (European Structural Integrity Society) TC12 (Technical Committee 12) "AWARD OF MERIT"	2019

## 8. Other significant achievements

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

EVIIEWS SERVICE AND EDITORIAL BOARD MEMBERSHIP: Ad-hoc Reviewer/Certified Reviewer (total:467 reviews) (<https://publons.com/researcher/1357866/grzegorz-lesiuk/>) Member of the Scientific Committee of International Conferences: International Conference of Structural Integrity (2017, 2019) International Colloquium Mechanical Fatigue of Metals (2018) Composites – layered structures (2020) – chairmen of the organizing committee Polish National Fracture Mechanics Conference (2021) – co-chairman of the organizing committee 20th Colloquium Mechanical Fatigue of Metals (2021) - chairman Springer – Structural Integrity Series - <http://www.springer.com/series/15775> Editorial Advisory Board ISSN: 2522-560X Journal Editorial Board Membership: 1. Engineering Failure Analysis 2. Science Progress 3. Springer Nature Applied Science 4. Materials Science Springer (Strength of Materials) 5. American Journal of Mechanical and Materials Engineering 6. International Journal of Ocean Systems Management (IJOSM) Grzegorz Lesiuk CV The role of "Guest Editor" in journals: 1. Engineering Fracture Mechanics 2. Journal of Strain Analysis for Engineering Design 3. Advances in Mechanical Engineering 4. Fracture and Structural Integrity 5. International Journal of Structural Integrity 6. Advances in Materials Science and Engineering 7. SN Applied Sciences 8. Engineering Failure Analysis 9. International Journal of Fatigue 10. Theoretical and Applied Fracture Mechanics