



ACADEMIC TEACHER PROFESSIONAL EXPERIENCE DOCTORAL SCHOOL OF WROCŁAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

1. Basic information

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|---|---|
| Name, surname: | Jan Blachowski |
| Grade / Title: | Dr hab. inż. |
| 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 |
| Email address: | Jan.blachowski@pwr.edu.pl |
| Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.) | https://wggg.pwr.edu.pl/pracownicy/jan-blachowski |

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. | Blachowski J., Dynowski A., Buczyńska A., Ellefmo S.L., Walerysiak N., Integrated Spatiotemporal Analysis of Vegetation Condition in a Complex Post-Mining Area: Lignite Mine Case Study. <i>Remote Sensing</i> , 15, 3067. https://doi.org/10.3390/rs15123067 | 2023 |
| 2. | Buczyńska A., Blachowski J., Bugajska N., Analysis of post-mining vegetation development using remote sensing and spatial regression approach: a case study of former Babina mine (Western Poland). <i>Remote Sensing</i> , vol. 15, no 3, pp. 1-23 | 2023 |
| 3. | Buczyńska A., Blachowski J. Proposal of a new mining and geology Impact Factor (MaGIF) index for the study of post-mining environment. <i>Catena</i> (Elsevier), vol. 232, art. 107463, | 2023 |
| 4. | Blachowski J., Becker M., Kujawa P., Koźma J., Warchala E., Dynowski A., Pawlik M., Wajs J., Buczyńska A., Transformation processes in lignite post-mining landscape - erosion of anthropogenic formations in the former "Przyjazn Narodow - Szyb Babina" mine (Poland). <i>Zeitschrift der Deutschen Gesellschaft für Geowissenschaften</i> , vol. 173, no 4, pp. 565-580 | 2023 |
| 5. | Gładka A., Blachowski J., Rymaszewska J., Zatoński T., Investigating relationship between particulate matter air concentrations and suicides using geographic information system, <i>Psychology Health & Medicine</i> , vol. 27, no 10, pp. 2238-2245 | 2022 |
| 6. | Bęcek K., Ibrahim K., Bayık C., Abdikan S., Kutoğlu S.H., Głębicki D., Blachowski J. Identifying land subsidence using global digital elevation models. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , vol. 14, pp. 8989-8998 | 2021 |
| 7. | Blachowski J., Chojwa M., Assessing the cooling effect of four urban parks of different | 2021 |



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| | sizes in a temperate continental climate zone: Wrocław (Poland). Forests, vol. 12, nr 8 | |
| 8. | Blachowski J., Jiránková E., Lazecký M., Kadlecík P., Milczarek W. Application of satellite radar interferometry (PSInSAR) in analysis of secondary surface deformations in mining areas. Case studies from Czech Republic and Poland. Acta Geodynamica et Geomaterialia, vol. 15, no 2, pp. 173-185 | 2018 |
| 9. | Milczarek W., Blachowski J., Grzempowski P., Application of PSInSAR for assessment of surface deformations in post-mining area – case study of the former Walbrzych Hard Coal Basin (SW Poland). Acta Geodynamica et Geomaterialia, 14:1 (185), 41–52, 2017, DOI: 10.13168/AGG.2016.0026 | 2016 |
| 10. | Blachowski J., Application of GIS spatial regression methods in assessment of land subsidence in complicated mining conditions - case study of the Walbrzych coal mine (SW Poland). Natural Hazards, 84:997–1014, DOI: 10.1007/s11069-016-2470-2 | 2016 |

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 | Genesis and course of anthropogenic and natural deformations of the terrain in post-mining areas of the former brown coal mine "Babina" (2019/33/B/ST10/02975) |
| | Sources of funding | National Research Centre (NCN) |
| | Name of the call | OPUS-17 |
| | Implementation period | 2.2020-11.2023 |
| 2. | Role in the project (e.g., principal investigator, work package leader, etc.) | Principal Investigator |
| | Project title | Smart System for Underground Impact Geomonitoring (SMEG) |
| | Sources of funding | National Agency for Academic Exchange |
| | Name of the call | Polish-German Bilateral Cooperation |
| | Implementation period | 1.2022-12.2023 |
| 3. | Role in the project (e.g., principal investigator, work package leader, etc.) | Principal Investigator |
| | Project title | Genesis and course of anthropogenic and natural deformations of the terrain in post-mining areas of the former brown coal mine "Babina". Stage 2: The influence of hydrogeological conditions on the process of land deformations in post-mining areas. (2021/43/B/ST10/02157) |
| | Sources of funding | National Research Centre (NCN) |
| | Name of the call | OPUS-22 |
| | Implementation period | 11.2022-11.2025 |
| 4. | Role in the project (e.g., principal investigator, work package leader, etc.) | Principal Investigator |



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|----|---|---|
| | Project title | Closed-Loop Impact Monitoring for Environmentally and Socially Acceptable Energy Transition in Rural Regions |
| | Sources of funding | National Centre for Research and Development |
| | Name of the call | 4 th Polish German Cooperation Call |
| | Implementation period | 8.2022-7.2025 |
| 5. | Role in the project (e.g., principal investigator, work package leader, etc.) | Principal Investigator |
| | Project title | Studies of mining impacts on the surrounding environment - developing the methodology of description and prediction of deformations based on machine learning |
| | Sources of funding | National Agency for Academic Exchange |
| | Name of the call | M. Bekker Call |
| | Implementation period | 4.2022-12.2022 |

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. | Department of Geology and Mineral Resources Engineering, Norwegian University of Science and Technology, Trondheim, Norway | 2022, 8 months |
| 2. | Institute of Mine Surveying and Geodesy, Faculty of Geosciences, Geoengineering and Mining, Technical University Bergakademie Freiberg, Germany | 2021, 1 week |
| 3. | ISPRS Summer School: Geospatial technologies for natural environment management and monitoring, Wrocław University of Science and Technology, Wrocław; Poland | 2019, 1 week |
| 4. | Faculty of Engineering, Bülent Ecevit University, Zonguldak, Turcja, | 2017, 1 week |
| 5. | Faculty of Engineering, Bülent Ecevit University, Zonguldak, Turcja, | 2016, 1 week |
| 6. | Visiting scholar, Leibniz Institute of Ecological Urban and Regional Development, Dresden, Germany | 2014, 2 weeks |
| 7. | Department of Geology and Mineral Resources Engineering, Norwegian University of Science and Technology, Trondheim, Norway, | 2013, 2 weeks |
| 8. | Canadian Centre for Geodetic Engineering, University of New Brunswick, Fredericton, Canada | 2012, 3 months |
| | Department of Geology and Mineral Resources Engineering, Norwegian University of Science and Technology, Trondheim, Norway | 2011, 2 weeks |
| | Visiting researcher, Department of Geology and Mineral Resources Engineering, Norwegian University of Science and Technology, Trondheim, Norway | 2009, 5 months |
| | Royal Town Planning Institute – West Midlands Branch, UK | 2007, 2 weeks |
| | Referat Europäische Raumordnung Regionalentwicklung, Department of Land Development and Geodesy, Ministry of Internal Affairs, Dresden, Germany | 2006, 3 weeks |
| | European Advanced School on Tectonics, International Centre for Theoretical Physics, Triest, Italy | 2005, 1 week. |



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. | ISPRS Summer School: Geospatial technologies for natural environment management and monitoring | 2019 |
| 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. | Anna Buczyńska | Modelowanie wpływu dawnej, złożonej działalności górniczej na stan wybranych komponentów środowiska przyrodniczego w obszarze glacjektonicznym | 2023 |
| 2. | Karolina Owczarz | Modelowanie przemieszczeń powierzchni terenu wywołanych sejsmicznością indukowaną z zastosowaniem metody uczenia maszynowego | 2022 |

7. Prizes and awards

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

| No. | Description | Year |
|-----|---|--|
| 1. | Opiekun pracy dyplomowej inżynierskiej wyróżnionej 2 miejscem w konkursie na najlepsze prace dyplomowe obronione na kierunku geodezja i kartografia w 2021/2022 roku w konkursie Stowarzyszenia Geodetów Polskich (inż. Karolina Tomczak) | 2023 |
| 2. | Nagroda Rektora Politechniki Wrocławskiej za wybitny wkład w rozwój uczelni (2007, 2013, 2014, 2018, 2020, 2021, 2022) | 2007, 2013, 2014, 2018, 2020, 2021, 2022 |
| 3. | ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences Outstanding Reviewer Award | 2022 |
| 4. | Generalny Dyrektor Górnicy III stopnia | 2021 |
| 5. | Opiekun pracy dyplomowej wyróżnionej w konkursie wrocławskiego oddziału Towarzystwa Urbanistów Polskich (mgr inż. Paulina Szrama) | 2020 |
| 6. | Nagroda im. Prof. Bolesława Krupińskiego „Przeglądu Górnictwa” (3 miejsce) | 2020 |
| 7. | Nagroda Docendo Discimus Rektora Politechniki Wrocławskiej | 2019 |
| 8. | Dyrektor Górnicy I stopnia | 2018 |
| 9. | Honorowa Odznaka Zasłużony dla Górnictwa | 2018 |
| 10. | Złota Odznaka Politechniki Wrocławskiej | 2018 |



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| 11. | Srebrna Odznaka Zasłużony dla Województwa Dolnośląskiego | 2016 |
| 12. | Brązowy Medal za Długoletnią Służbę | 2016 |
| 13. | Dyrektor Górniczy III stopnia | 2011 |
| 14. | Wyróżnienie Marszałka Województwa Dolnośląskiego | 2003, 2007 |
| | Nagroda zespołowa 2. stopnia Ministra Infrastruktury za wybitne osiągnięcia twórcze i naukowe w dziedzinie architektury, budownictwa, planowania przestrzennego, urbanistyki oraz geodezji i kartografii | 2003, 2007 |

8. Other significant achievements

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

Supervisor of Student geographic Information Systems Research Society

International Society for Photogrammetry and Remote Sensing (ISPRS) – member

International Society for Mine Surveying (ISM) - member

Polish Association for Spatial Information (PASI) – head of Lower Silesia Commission

Commission on Protection of Mining Areas Polish Academy of Sciences – member

Other upon request