



ACADEMIC TEACHER PROFESSIONAL EXPERIENCE

DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

1. Basic information

| | |
|---|---|
| Name, surname: | Monika Podworna |
| Grade / Title: | Dr hab. inż |
| Scientific discipline | inżynieria lądowa, geodezja i transport / civil engineering, geodesy and transport |
| Faculty: | W2 Wydział Budownictwa Lądowego i Wodnego / Faculty of Civil Engineering |
| Email address: | monika.podworna@pwr.edu.pl |
| Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.) | Monika Podworna (researchgate.net) |

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. | Podworna M., Klastorny M., Vertical vibrations of composite bridge / track structure / high-speed train systems. Part 1: Series-of-types of steel-concrete bridges, Bulletin of the Polish Academy of Sciences: Technical Sciences, 62:1 (2014) 165–179, http://dx.doi.org/10.2478/bpasts-2014-0018 | 2014 |
| 2. | Podworna M., Klastorny M., Vertical vibrations of composite bridge / track structure / high-speed train systems. Part 2: Physical and mathematical modelling, Bulletin of the Polish Academy of Sciences: Technical Sciences, 62:1 (2014) 181–196, http://dx.doi.org/10.2478/bpasts-2014-0019 | 2014 |
| 3. | Podworna M., Klastorny M., Vertical vibrations of composite bridge / track structure / high-speed train systems. Part 3: Deterministic and random vibrations of exemplary system, Bulletin of the Polish Academy of Sciences: Technical Sciences, 62:2 (2014) 305–320, http://dx.doi.org/10.2478/bpasts-2014-0030 | 2014 |
| 4. | Podworna M., Modelling of random vertical irregularities of railway tracks, International Journal of Applied Mechanics and Engineering, 20:3 (2015) 647–655, http://dx.doi.org/10.1515/ijame-2015-0043 | 2015 |
| 5. | Podworna M., Dynamic response of steel-concrete composite bridges loaded by high-speed train, Structural Engineering and Mechanics, 62:2 (2017) 179–196, http://dx.doi.org/10.12989/sem.2017.62.2.179 | 2017 |
| 6. | Podworna M., Śniady P., Grosel J., Random vibrations of a structure modified by damped absorbers, Probabilistic Engineering Mechanics 66 (2021) 103151, https://doi.org/10.1016/j.probengmech.2021.103151 | 2021 |
| 7. | Grosel J., Podworna M., Optimisation of absorber parameters in the case of stochastic vibrations in a bridge with a deck platform for servicing pipelines, Studia Geotechnica et Mechanica, (2021); 1–9 https://www.sciendo.com/article/10.2478/sgem-2021-0030 | 2021 |



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| 8. | Anysz H., Podwórna M., Ibadov N., Lennerts K., Dikarev K., Hybrid Predictions of the Homogenous Properties' Market Value with the Use of ANN, Archives Of Civil Engineering, Vol. LXVII ISSUE 1, (2021) 285-301, https://doi.org/10.24425/ace.2021.136474 | 2021 |
| 9. | Podwórna, M. The aging of a building versus its life cycle with regards to real estate appraisal. Real Estate Management and Valuation, 30(2), (2022) 84-95 https://doi.org/10.2478/remav-2022-0016 | 2022 |
| 10. | Podwórna, M., Sawicki, M. Real estate appraisal using the liquidation cost method – A case study. Real Estate Management and Valuation, 31(3), (2023), 75-82. https://doi.org/10.2478/remav-2023-0023 | 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.) | work package leader |
| | Project title | Dynamics of composite railway bridges for high-speed railways including approach zones and random parameters |
| | Sources of funding | National Council for Scientific Research (Cracow, Poland, PL) |
| | Name of the call | NCN nr N N506 0992 40 |
| | Implementation period | 2011–2013 |
| 2. | Role in the project (e.g., principal investigator, work package leader, etc.) | principal investigator |
| | Project title | Scalable and real-time solution for automatic estimation of property reconstruction costs |
| | Sources of funding | National Council for Scientific Research (Warsaw, Poland, PL) |
| | Name of the call | POIR.01.01.01-00-1136/21 |
| | Implementation period | 2022-2023 |
| 3. | Role in the project (e.g., principal investigator, work package leader, etc.) | principal investigator |
| | Project title | Computer aided design of steel bridges located on high-speed railroad lines |
| | Sources of funding | National Council for Scientific Research (Warsaw, Poland, PL) |
| | Name of the call | KBN Nr 8 T07E 024 20 |
| | Implementation period | 2001–2003 |
| 4. | Role in the project (e.g., principal investigator, work package leader, etc.) | investigator |
| | Project title | Development of nonlinear random vibration theory and software for dynamic calculations of railway bridges |
| | Sources of funding | National Council for Scientific Research (Warsaw, Poland, PL) |
| | Name of the call | KBN Nr 7 T07E 036 12 |
| | Implementation period | 1997–1999 |



| | | |
|----|---|--|
| 5. | Role in the project (e.g., principal investigator, work package leader, etc.) | Investigator, faculty coordinator |
| | Project title | ZPR PWr - Integrated Development Program of Wrocław University of Science and Technology |
| | Sources of funding | National Council for Scientific Research (Warsaw, Poland, PL) |
| | Name of the call | POWR.03.05.00-IP.08-00-PZ3/17 |
| | Implementation period | 2018-2022 |

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. | Presenter on the 2nd European Conf. on Computational Mechanics, ECCM-2001 | 2001 |
| 2. | 4th International Conference on Structural Dynamics, EURO DYN 2002, Munich, Germany | 2002 |
| 3. | Presenter on the 14th International Conference on Civil, Structural and Environmental Engineering Computing, Cagliari, Sardinia, Italy | 2013 |
| 4. | Presenter on the 20th International Conference on Computer Methods in Mechanics, CMM 2013 | 2013 |
| 5. | Presenter on the XXVII RSP Seminar: Theoretical Foundation of Civil Engineering, Rostov-on-Don, Russia | 2018 |
| 6. | Presenter on the 4th International Conference on Railway Technology: Research, Development and Maintenance, Barcelona, Spain | 2018 |
| 7. | Chairperson on XXVIII. Polish – Slovak - Russian Seminar: Theoretical Foundation of Civil Engineering – Zilina, Slovakia | 2019 |
| 8. | Co-chair organizing committee on XXIX. RSP SEMINAR – Wrocław, Poland | 2020 |
| 9. | Keynote speaker on EURO CIVIL 2024 International Congress And Expo On Civil And Structural Engineering - Edinburgh, Scotland | 2024 |
| 10. | Member of organizing committee on CUTE2024 The 4th International Conference on Sustainable Development in Civil, Urban and Transportation Engineering – Wrocław, Poland | 2024 |

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. | - | |
| 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. | - | | |
| 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. | Recognized European Valuer TEGoVA | 2008 |
| 2. | Gold Badge of the Wrocław University of Science and Technology | 2010 |
| 3. | Bronze Medal for Long Service (awarded by the Polish President) | 2014 |
| 4. | Awards of the Rector of WUST | |

8. Other significant achievements

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

1997 – the licence of a real estate appraiser in Poland

2003 – the licence to direct construction works in the field of building structures without limitations

2008 Recognised European Valuer