

**Candidate supervisor's information summary form**  
maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: <b>Marek Kalenik, Ph.D., D.Sc., Eng., prof. SGGW</b>	
Scientific discipline/ disciplines	1. Environmental engineering, mining and energy 2. Civil engineering, geodesy and transport
Professional development (degrees and titles) in chronological order	1995 - master of science in environmental engineering; Faculty of Land Reclamation and Environmental Engineering; Warsaw University of Life Sciences 1999 - doctor of agricultural sciences in the discipline of environmental management; Faculty of Land Reclamation and Environmental Engineering; Warsaw University of Life Sciences 2018 - habilitated doctor in the field of technical sciences in the discipline of environmental engineering; specialization: hydraulics, water supply and sewage systems; Faculty of Civil and Environmental Engineering; Bialystok University of Technology 2022 - professor SGGW; Institute of Environmental Engineering
Most important publications/ patents in the last 3 years (maximum 10)	1. Świętochowski K., Andraka D., Kalenik M., Gwoździej-Mazur J.: The Hourly Peak Coefficient of Single-Family and Multi-Family Buildings in Poland: Support for the Selection of Water Meters and the Construction of a Water Distribution System Model. <i>Water</i> 2024, 16, 1077–1091, <a href="https://doi.org/10.3390/w16081077">https://doi.org/10.3390/w16081077</a> . 2. Chmielowski K., Halecki W., Masłoń A., Bąk Ł., Kalenik M., Spychała M., Bedla D., Pytlowany T., Paśmionka I. B., Sikora J., Sionkowski T.: The Efficiency of a Biological Reactor in a Domestic Wastewater Treatment Plant Operating Based on ABS (Acrylonitrile Butadiene Styrene) Material and Recycled PUR (Polyurethane) Foam. <i>Sustainability</i> 2024, 16, 1149 - 1162. <a href="https://doi.org/10.3390/su16031149">https://doi.org/10.3390/su16031149</a> . 3. Kalenik M., Morawski D.: System for cleaning acid-resistant steel rings and method for cleaning them. Patent/exclusive right number: Pat. 246162 B1. Application number: P. 442322. Submission date: 20.09.2022. Date of granting the right: 17.09.2024. Patent publication: [WUP 50/2024: 09.12.2024] 4. Malmur R., Pluta K., Świętochowski K., Kalenik M.: Possibility of using retention reservoirs as flow controllers. <i>Instal</i> 2023, 12, 84-90. DOI 10.36119/15.2023.12.13. 5. Świętochowski K., Świętochowska M., Kalenik M., Gwoździej-Mazur J.: Analysis of the Use of a Low-Power Photovoltaic System to Power a Water Pumping Station in a Tourist Town. <i>Energies</i> 2023, 16, 7435-7448. <a href="https://doi.org/10.3390/en16217435">https://doi.org/10.3390/en16217435</a> . 6. Kalenik M., Chalecki M., Wichowski P., Kiczko A., Chmielowski K., Świętochowska M., Gwoździej-Mazur J.: Real values of

	<p>local resistance coefficients during water flow through a pipe aerator with filling. Journal of Water and Land Development 2023, 59 (X–XII), 174-182. DOI: 10.24425/jwld.2023.147242.</p> <p>7. Kalenik M., Wichowski P., Chalecki M., Kiczko A.: Efficiency of wastewater purification in medium sand with a lightweight expanded clay aggregate assisting layer. Journal of Water and Land Development 2023, 57 (IV–VI), 30-38. DOI: 10.24425/jwld.2023.145333.</p> <p>8. Chmielowski K., Halecki W., Masłoń A., Bąk Ł., Kalenik M., Spychała M., Niedziółka A., Łaciak M., Roman M., Mazurkiewicz J.: Use of Shredded Recycled Plastic as Filter Bed Packing in a Vertical Flow Filter for Onsite Wastewater Treatment Plants: Preliminary Findings. Sustainability 2023, 15, 1883-1897. <a href="https://doi.org/10.3390/su15031883">https://doi.org/10.3390/su15031883</a>.</p> <p>9. Wichowski P., Kalenik M., Rutkowska G., Malarski M., Czajkowska J., Franus W.: Properties of products obtained in the process of solidification and stabilization of fly ash resulting from thermal treatment of sewage sludge. Cement Lime Concrete 2023, 28(6), 389-408, doi:<a href="https://doi.org/10.32047/CWB.2023.28.6.3">https://doi.org/10.32047/CWB.2023.28.6.3</a></p> <p>10. Siejka R., Mieszkalski L., Lisowski A., Tucki K., Kulpa K., Kalenik M., Morawski D.: Device for removing the outer layer of large pumpkin fruits. Patent/exclusive right number: Pat. 240037 B1. Application number: P. 432382. Submission date: 02.01.2020. Date of granting the right: 02.02.2022. Patent publication: [WUP 50/2024: 09.12.2024]</p>
Experience in work with doctoral students (defended doctoral dissertations, initiated doctoral procedures) in chronological order	
Achievements in the area of projects/grants (in the last 5 years)	Kalenik M., Morawski D.: Pipe aerator with filling. Project in the program "Innovation Incubator 4.0" (Agreement no MNISW/2020/358DIR) implemented as part of a non-competitive project "Support for scientific research management and commercialization of B+R results in scientific units and enterprises" under the Smart Growth Operational Program 2014-2020 (Action 4.4). Completion date: 01.07.2021-28.02.2022. SGGW Warsaw.
Subject area of the research project for which the candidate student is being recruited	<p>1. Investigation of hydraulic working conditions of airlifts used in rapid filters with a self-regenerating bed.</p> <p>2. Investigation of the influence of the addition of sludge from washing the rapid filters on chemical and strength properties of concrete.</p>
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