

### Card of the potential supervisor

Name and surname, degree, academic title	
<b>Dr hab. inż. Zbigniew M. Karaczun, professor SGGW</b>	
Scientific discipline / disciplines	Environmental engineering (50%) Horticulture and agriculture (50%)
Professional development (academic degrees and titles) chronologically	<b>May 6, 1992</b> - PhD in agricultural sciences in the field of horticulture (Faculty of Horticulture, Warsaw University of Life Sciences) <b>September 30, 2009</b> - dr hab. agricultural sciences in the field of environmental shaping, specializing in environmental protection (Faculty of Engineering and Environmental Management, Warsaw University of Life Sciences)
The most important publications / patents / from the last 3 years (maximum 10))	<ol style="list-style-type: none"> <li>1. Karaczun Zbigniew, Swacha Piotr, Herudziński Tomasz: Polskie ogrodnictwo wobec wyzwań polityki klimatycznej – percepcja, wiedza i działania sadowników rejonu sandomierskiego, <i>Studia Biura Analiz Sejmowych Kancelarii Sejmu</i>, 2023, vol. 2, nr 74, s.171-190. DOI:10.31268/studiabas.2023.17</li> <li>2. Swoczyna Bernard, Karaczun Zbigniew: A mainstay of budget? Coal mining as a source of revenue for Polish local governments, <i>Energy Policy</i>, 2023, vol. 180, s.1-13, Numer artykułu:113658. DOI:10.1016/j.enpol.2023.113658</li> <li>3. Karaczun Zbigniew, W: Trailblazers. Ukraine's road to the EU and what the Polish experience can teach us / Głowacki Krzysztof (red.), 2023, Warsaw Institute for Economic and European Studies, s.128-147, ISBN 978-83-67829-23-6</li> <li>4. Karaczun Zbigniew, Swacha Piotr, Herudziński Tomasz: Funkcjonowanie instytucji publicznych w percepcji sadowników z regionu sandomierskiego w okresie pandemii COVID-19, <i>Studia Politologiczne</i>, 2022, vol. 64, nr 2, s.109-127. DOI:10.33896/SPolit.2022.64.7</li> <li>5. Karaczun Zbigniew, Bojanowski Jakub: The role of socialisation of the forest management system in Poland in the face of the need to mitigate climate change, <i>Ochrona Środowiska i Zasobów Naturalnych</i>, 2022, vol. 33, nr 3, s.10-20. DOI:10.2478/oszn-2022-0009</li> <li>6. Karaczun Zbigniew i in.: Adaptacja do zmiany klimatu w programach ochrony środowiska małych i średnich polskich miast, <i>Studia Biura Analiz Sejmowych Kancelarii Sejmu</i>, 2022, vol. 71, nr 3, s.59-80. DOI:10.31268/studiabas.2022.21</li> <li>7. Swacha Piotr, Karaczun Zbigniew, Murawska Daria: The Europeanization of Polish Climate Policy, <i>Ekonomia i Środowisko</i>, 2022, vol. 83, nr 4, s.62-75. DOI:10.34659/eis.2022.83.4.482</li> <li>8. Karaczun Z. M., Kozyra J., 2020: Wpływ zmiany klimatu na bezpieczeństwo żywnościowe Polski. Wyd. SGGW. Warszawa ss. 118 ISBN 987-83-7583-875-6</li> </ol>

	<p>9. Karaczun Zbigniew, Obidoska Grażyna, Żarska Barbara: Phytotoxicity and phytogenotoxicity of soil and air in the vicinity of a petrochemical plant in Płock (Poland), Environmental Science and Pollution Research, 2020, vol. 27, nr 19, s.24430-24437. DOI:10.1007/s11356-020-08788-z</p> <p>10. Mills J., Ingram J., Dibari C., Merante P., Karaczun Z.M., Molnar M, Sánchez B., Iglesias A., Ghaley B.B., 2019: Barriers to and opportunities for the uptake of soil carbon management practices in European sustainable agricultural production, Agroecology and Sustainable Food Systems, DOI: 10.1080/21683565.2019.1680476.</p>
Experience in working with PhD students (defended PhDs, open courses), chronologically	<b>Supervisor:</b> Anna Hadam: Effect of salinity on the effectiveness of a hydrogel in water deficit conditions on the example of street lawns (defended at the Faculty of Horticulture, Biotechnology and Landscape Architecture in 06/2015).
Project / grant achievements (from the last 10 years)	<ul style="list-style-type: none"> <li>• Greencoin 2022 – 2024. The research supported by funding from Iceland, Liechtenstein and Norway under the EEA Funds and the state budget of Poland via the National Centre for Research and Development, grant no. NOR/IdeaLab/GC/0003/2020-00. Ekspert zewnętrzny</li> <li>• Low-emission Poland 2050 (Project financed by the European Climate Foundation). External expert in the field of the circular economy and innovation in climate policy. Project implemented on 8/2012 - 12/2015</li> <li>• Implementation of the goals of the European climate policy for 2030 in non-ETS sectors (Project financed by the German Ministry of Foreign Affairs) - head of the research task: Agriculture Project implemented in 2016</li> <li>• To continue building up better legislative condition for progressive climate and Energy policy and for transformation towards low-emission economy in Poland (Project financed by the European Climate Foundation). External expert in the field of implementation of the EU climate policy in Poland. Project implemented on 7/2016 - 6/2017</li> <li>• The impact of climate change on health (Project financed by HEAL Polska). External expert in the field of forecasting the effects of climate change in Poland. Project implemented on 10/2017 - 6/2018</li> <li>• The impact of food waste on the climate. (Project financed by the German Ministry of Foreign Affairs) - project coordinator. Project carried out on 05/2018 - 12/2018</li> </ul>
Thematic scope - a research problem - to be solved by a PhD student	<ul style="list-style-type: none"> <li>• The impact of various horticultural and agricultural systems on the natural environment and climate</li> <li>• The impact of climate change effects on cities and their inhabitants. Analysis and evaluation of climate crisis management in selected Polish cities.</li> <li>• Identification of methods and evaluation of the effectiveness of selected adaptation programs to the forecasted effects of</li> </ul>

	climate change implemented by local governments and / or economic entities and farms.
Basic expectations towards a candidate for a PhD student	<ul style="list-style-type: none"> <li>• Basic knowledge of climate change, climate policy and its instruments, its occurring and predicted effects, methods of mitigating, adaptation to the effects.</li> <li>• Knowledge of environmental problems occurring in urban areas;</li> <li>• Knowledge of the main directions of needs in the field of urban adaptation to contemporary threats: climate crisis, air pollution, loss of biodiversity;</li> <li>• Basic knowledge of methods for the assessment and valuation of pro-environmental activities and the valuation of the value of ecosystem services used in contemporary environmental research;</li> <li>• The ability to use contemporary social communicators and understanding their functions for contemporary city dwellers.</li> <li>• Basic knowledge of town and city planning and spatial planning.</li> </ul>
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