

Name and surname:	Roman Jaskulski
Academic Degree:	dr hab. inż. (DSc.)
Institute/Department:	Department of Civil Engineering
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ORCID:	0000-0002-2318-9323
UPWr Base of Knowledge - link:	https://bazawiedzy.upwr.edu.pl/info.seam?id=UPWRf6b2e9d8b3ab40b297095f94b455211b&affil=&lang=pl
Researchgate:	https://www.researchgate.net/profile/Roman-Jaskulski
Personal website / Working group website:	
Participation in projects in last 5 years (chronological; with distinction into PI (kierownik) and RF (wykonawca)):	<p>1. Title: Ecological construction materials using industrial waste Financing: City of Płock budget - activity "Cooperation with higher education institutions" Value of the project: PLN 40 000.00; Function: Principal investigator - PI Involvement time: 2018-2019</p> <p>2. Title: Concrete - investigation and modelling of thermal, mechanical and rheological phenomena and parameters Financing: Faculty of Civil Engineering, Mechanics and Petrochemistry Warsaw University of Technology – Dean's Grants Funds Value of the project: PLN 54 000.00; Function: Principal investigator - PI Involvement time: I-XII 2020</p> <p>3. Title: Air permeability of concrete as a function of its water saturation Financing: BEYOND POB programme as part of the University's Excellence Initiative project implemented at the Warsaw University of Technology. Value of the project: PLN 198 610.00 Function: Principal investigator - PI Involvement time: 2022-2023</p>
Do you plan to engage support of second supervisor or auxiliary supervisor?	YES
	Auxiliary supervisor
Name and surname:	Maciej Kaźmierowski
Academic Degree:	dr inż. (Dr. Eng.)
Faculty, Institute/Department:	The Faculty of Environmental Engineering and Geodesy, Department of Civil Engineering
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UPWr Base of Knowledge - link or most important publications from last 3 year (JCR) / patents from last 3 years (maximum 5):	https://bazawiedzy.upwr.edu.pl/info.seam?id=UPWrec1a730b0e3e4e7e832bad1b44e67614&affil=&lang=pl
Researchgate:	https://www.researchgate.net/profile/Maciej-Kazmierowski
Personal website / Working group website:	
Projects in last 5 years (chronological; with distinction into PI (kierownik) and RF (wykonawca)):	<p>1. Title: Experimental and theoretical investigations into the deformation of flexural elements made of high performance concrete modified with dispersed and longitudinal reinforcement Financing: N060/0012/21 (Basic subvention - Innowacyjny Naukowiec II) Function: Principal investigator - PI Involvement time: 2021</p> <p>2. Title: Experimental investigation of the influence of a magnetic field on the deformation and mechanical properties of high-strength concrete modified with steel fibres Financing: N110/0001/22 (Basic subvention - POMOST II) Function: Principal investigator - PI Involvement time: 2022-2023</p> <p>3. Title: Analysis of the properties of high-strength geopolymer concrete modified with hybrid dispersed reinforcement Financing: N010/0009/23 (IDUB - 2%) Function: Principal investigator - PI Involvement time: 2023-2024</p>
PhD topic:	Modelling changes in selected parameters of concrete with concrete aggregate subjected to multiple recycling processes
Research discipline in Doctoral School:	Civil Engineering, Geodesy and Transport

<p>Short description of the research problem to be solved in the PhD (minimum 1000 characters):</p>	<p>The research topic involves the investigation of selected mechanical and durability parameters of concrete made from recycled aggregate. The peculiarity and novelty of the approach that will be applied to this research topic will be the use of aggregate that has undergone more than one recycling process. The virgin concrete made with natural aggregate will be tested and then a recycled concrete aggregate will be prepared based on it. This aggregate will be used in the concrete produced in the next stage. The concrete with the aggregate produced in this way will also be tested and then undergo a recycling process. The result will be an aggregate that has been recycled twice. The above process will be carried out iteratively in order to obtain concrete with aggregate that has been recycled at least four times.</p> <p>The aim of the research will be to investigate and describe, in the form of empirical models, the changes in the mechanical and durability parameters of concrete with the use of aggregate after successive recycling cycles.</p> <p>The research will produce both a series of concrete with a uniform composition in successive iterations and concrete that will vary in terms of water-cement ratio and type of cement used between successive iterations. The exact research plan, specifying the number of different 'families' of concrete mixes, together with the assumptions of varying their composition in successive iterations, will be determined in consultation with the PhD student, taking into account the educational cycle of the Doctoral School, which enforces the limitation of a potentially wide scope of research.</p>
<p>Professional skills for PhD candidate (e.g. master program, specializations, softwares, language, analytical techniques, minimum 500 characters):</p>	<p>The potential candidate should hold a level II (Master's) degree in civil engineering. Knowledge of English at B2 level is also desirable, as well as time availability due to the need to carry out a large range of laboratory tests, often on a strict schedule. Knowledge of basic descriptive statistics and the ability to critically analyse results using at least basic worksheet tools (e.g. Excel) is desirable.</p> <p>Professional experience related to concrete technology is welcome but not required.</p> <p>Notwithstanding the above, the candidate must meet the requirements for candidates by the Doctoral School.</p> <p>In the case of candidates from abroad, it is solely the responsibility of the candidate to fulfil the requirements of having a diploma recognised in the Polish education system. If a visa is required for the duration of their stay in Poland, such a candidate is also obliged to obtain one on their own.</p>
<p>a) Project title:</p>	<p>none</p>
<p>b) Agreement number:</p>	<p>none</p>
<p>c) Number of months in the project to support PhD student (in months; starting from 1st of October 2024):</p>	<p>0</p>
<p>Project website:</p>	