

JOB OFFER

Position in the project:	<i>Group leader (adjunct)</i>
Scientific discipline:	<i>civil engineering, microbiology,</i>
Job type (employment contract/stipend):	<i>employment contract</i>
Number of job offers:	<i>1</i>
Remuneration/stipend amount/month (" <i>X0 000 PLN of full remuneration cost, i.e. expected net salary at X 000 PLN</i> "):	<i>15 000 PLN of full remuneration cost, i.e. expected net salary at 8 900 PLN</i>
Position starts on:	<i>1.01.2020</i>
Maximum period of contract/stipend agreement:	<i>36 months</i>
Institution:	<i>Lublin University of Technology, Faculty of Civil Engineering and Architecture / Lublin</i>
Project leader:	<i>Prof. Wojciech Franus</i>
Project title:	<i>Fly ashes as the precursors of functionalized materials for applications in environmental engineering, civil engineering and agriculture</i>
Project description:	<p><i>Project is carried out within the TEAM-NET programme of the Foundation for Polish Science</i></p> <p><i>This TEAM-NET joint project assumes using fly ashes as a precursors for the synthesis of novel functionalized materials with the structure of not only zeolites, but also mesoporous silica materials and metal-organic frameworks (MOFs). Then produced materials will be tested for possible applications in agriculture, civil and environmental engineering. With the implementation of new technologies of coal combustion and flue gas treatment, new types of fly ashes with increased content of unburned carbon (up to 30%) have been produced. Such byproducts will be used in this project for the synthesis of novel zeolite-carbon composites. Previous work related to the use of this type of fly ashes was focused on the separate production of zeolites or activated carbons, which did not fully exploit the potential of the above-mentioned byproducts. Their use as a precursor to the synthesis of a zeolite-carbon-vermiculite composite in this project will also pave the way for developing a novel material to replace vermiculite raw materials in agricultural applications.</i></p> <p><i>In this joint project 6 independent subprojects/work packages (with separate budgets) will be conducted. Selected (in an open contest) group leaders will have their own budget (around 3,500,000 PLN for 36 months) for the creation of their own research group (two post-docs, two PhD students, technician and additional, part-time scientific staff member) and to conduct researches in the particular topic.</i></p> <p><i>With this announcement we are looking for a group leader for the work-package #2 entitled "Novel (bio-)mineral mixtures for civil engineering". This topic focuses on the use of functionalized materials in construction. Optimization of the composition of mineral-asphalt mixtures, self-healing concrete and biocements (obtained with the use of a microbial technology for calcium carbonate production) will be carried out. Important technological parameters, including viscosity, frost resistance, rutting resistance, compressive and tensile strength, and drying shrinkage will be determined for the recipes developed, thus allowing to evaluate their potential for industrial applications.</i></p>

Key responsibilities include:	<ol style="list-style-type: none"> 1. <i>Development of recipes for mineral-asphalt mixtures that would allow lowering the asphalt production temperature by at least 30°C.</i> 2. <i>Development of a microbial technology for biocement production.</i> 3. <i>Development of recipes for self-healing concretes containing calcium-carbonate-precipitating bacteria.</i>
Profile of candidates/requirements:	<ol style="list-style-type: none"> 1. <i>The candidate must be a young scientist (max. 9 years after obtaining the PhD diploma).</i> 2. <i>The candidate must be experienced in the subject area of the work-package #2 (see above).</i> 3. <i>The candidate must be fluent in English (both speaking and writing).</i> 4. <i>The candidate must be an author of at least five scientific publications published in journals from the JCR list (including at least two articles as first/last/corresponding author).</i> 5. <i>Preferentially, the candidate should have an experience in obtaining funds for the researches from external project-funding agencies.</i> 6. <i>The candidate must not be employed at Lublin University of Technology or AGH University of Science and Technology or University of Warsaw in 2018 and 2019.</i>
Required documents:	<ol style="list-style-type: none"> 1. <i>Proposal of assumptions and research methods which will be the subject of R&D works of the research team led by a given person as part of the conducted project, with the indication of the foreign scientific partners involved in collaboration (if applicable) – (up to 4 A4 pages, Times New Roman font – size 11, 2 cm margins on each side, spacing – 1)</i> 2. <i>Curriculum vite including:</i> <ol style="list-style-type: none"> 2.1. <i>A detailed description of the academic degrees and titles, titles of theses (master and doctoral, along with short description of main achievements in each thesis – up to 300 characters including spaces), years of receiving the degree/academic title, names and affiliation of supervisors and reviewers of each thesis.</i> 2.2. <i>The academic career – chronological indication of places of employment with the indication of posts and contact details of the direct supervisor.</i> 2.3. <i>List of scientific publications/monographs/books/chapters – including the full list of authors, indication whether the candidate was the corresponding author of the given publication, title, full title of the journal and 5-year IF.</i> 2.4. <i>List of conducted scientific projects (as the coordinator/principal investigator) funded by external project-funding agencies – entries should be provided with the project title, project number, the amount of funding, time of project realization, all documents (including patents, patent applications, know-how, etc.) produced in the course of project realization.</i> 2.5. <i>List of supervised bachelor, engineer, master and doctoral theses (with the indication of the unit)</i> 2.6. <i>Participation in conferences (list of conferences in which the candidate took active part, stating whether it was a lecture or a poster), internships abroad (research stays) and most important trainings.</i> 2.7. <i>List of awards and distinctions including their range (international/national).</i> 3. <i>Description of most important achievements:</i> <ol style="list-style-type: none"> 3.1. <i>Five annexes enabling the assessment of the most important scientific and/or implementation achievements from the last 10 years (full publication texts, full patent texts, etc. plus</i>

	<p>descriptions of implementations – up to 500 characters per implementation).</p> <p>3.2. Description of novelty and innovativeness of the above-mentioned achievements and their contribution to the developments of scientific fields (up to 2 A4 pages, Times New Roman font – size 11, 2 cm margins on each side, spacing – 1).</p> <p>3.3. Description of achievements and outcomes of a selected, recently realized project (up to 1 A4 page, Times New Roman font – size 11, 2 cm margins on each side, spacing – 1).</p> <p>4. Recommendation letter from the last employer (direct supervisor) and address details of 3 other scientists who may recommend the given candidate</p>
We offer:	<p>Work in pleasant and scientific atmosphere. Good environment for a scientific self-development. Access to scientific infrastructure and overall support for a group leader. A budget (around 3,500,000 PLN for 36 months) for the creation of their own research group (two post-docs, two PhD students, technician and additional, part-time scientific staff member) and to conduct researches in the particular topic (for details concerning budgets in particular categories of costs please contact with the project coordinator – prof. Wojciech Franus w.franus@pollub.pl).</p>
Please submit the following documents to:	<p>wb.sekretariat@pollub.pl and w.franus@pollub.pl</p>
Application deadline:	<p>22.11.2019</p>
For more details about the position please visit (website/webpage address):	<p>https://www.fnp.org.pl/oferta_pracy</p> <p>http://wbia.pollub.pl/pl/praca</p> <p>http://www.wggios.agh.edu.pl/pracownicy</p> <p>https://www.biol.uw.edu.pl/pl/index.php?option=com_content&view=category&layout=blog&id=148&Itemid=317</p>
Euraxess job	<p>https://euraxess.ec.europa.eu/jobs/454788</p>
Appeal	<p>Possible appeals against the decision should be sent to prof. Wojciech Franus (project coordinator; w.franus@pollub.pl) no later than 7 days after receiving the decision, i.e. the date of results announcement. In the protest an explicit justification have to be included.</p>