



**Centre  
for Polar  
Studies**

Centre for Polar Studies  
ul. Będzińska 60  
41-200 Sosnowiec  
POLAND  
polarknow@us.edu.pl



**PhD student position at environmental Interdisciplinary Polar Studies**

**in Centre for Polar Studies, Leading National Scientific Centre (KNOW)**

**Reference No: CSP/2015/US/5**

**Title of PhD project:**

Relationship of landforms of periglacial environment according to permafrost on the basis of geophysical surveys of selected sites in Hornsund area, Spitsbergen.

**Location:** Centre for Polar Studies/ Faculty of Earth Sciences, University of Silesia

**Deadline:** 15<sup>th</sup> August 2015 r.

**Interviews:** 10<sup>th</sup> – 13<sup>th</sup> September 2015, venue will be indicated later

([http://www.polarknow.us.edu.pl/wp-content/uploads/Location\\_CPS\\_partners.pdf](http://www.polarknow.us.edu.pl/wp-content/uploads/Location_CPS_partners.pdf))

In the case of students from abroad the interview will be performed in the form of video conferencing.

**Mode of study:** full-time

**Degree to be obtained:** Doctor of Philosophy in Earth Sciences, discipline – Geography

**Duration:** 4 years (8 semesters), from October 2015

**Language:** Polish and English, Polish is not obligatory for students from abroad

**Scholarship:** citizens of Poland, EU citizens and owners of Card of the Pole can apply for scholarships funded by the KNOW (Leading National Scientific Centre) 2 000 – 4000 PLN/month (paid no longer than during four academic years)

**Fees applicable:** EU citizens applying on a regular basis – no fees; Non-EU citizens: 3 000 EUR per year; More information are available on website <http://admission.us.edu.pl/english/admission-rules>

**Required documents and registration online:**

[http://www.polarknow.us.edu.pl/en/isp\\_eng/required-documents-and-registration-online/](http://www.polarknow.us.edu.pl/en/isp_eng/required-documents-and-registration-online/)



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#### **Conditions of recruitment:**

1. The final result of the completion of the candidate's higher university degree (maximum 6 points, the conversion of diploma ratings: 6.0 (excellent) - 6 pts.; 5.0 - 5 pts. ; 4.5 - 4 pts.; 4.0 - 3 pts.; 3.5 - 2 pts.; 3.0 - 1 point).
2. Interview with a candidate will assess the knowledge, skills (an ability to design experiments to investigate new phenomena, test hypotheses and solve experimental problems, knowledge of English and scientific level of the submitted project of the doctoral dissertation (maximum 15 points).
3. The minimum number of points, which has to be obtained to be selected for the studies, is at least 14 points.
4. Eligible for studies shall be a person who obtain the highest number of ranking points up to fill the limit of places, subject to point 3.
5. Project implementation of doctoral dissertation (max. 2 pages) must be submitted by 15<sup>th</sup> August 2015.

#### **Requirements:**

1. MSc degree (or equivalent) in Geography, Geology, Geophysics, Physics, Surveying, GIS or equivalent science discipline. A candidate may submit application if the MSc Degree will be received not later than on 9<sup>th</sup> September 2015.
2. General knowledge of geophysical methods with particular focus on electroresistivity tomography (ERT)
3. Good communication skills in English in order to provide excellence in research in the area, (Polish is not required for foreigners).
4. Ability to work independently and as part of a team environment.
5. Creativity and ability to think critically.
6. Excellent networking skills in order to develop strong relationships with partners and with academics and researchers from other institutions.
7. Skills in RES2DINV and GIS software.

#### **Tasks description:**

1. Gathering and analysis of climate data covering the selected area of study for possible occurrence of contemporary frozen soil.



Krajowy Naukowy  
Ośrodek Wiedzy

University of Silesia  
Faculty of Earth Sciences  
ul. Będzińska 60  
41-200 Sosnowiec  
[www.wnoz.us.edu.pl](http://www.wnoz.us.edu.pl)

Institute of Geophysics  
Polish Academy of Sciences  
ul. Księcia Janusza 64  
01-452 Warszawa  
[www.igf.edu.pl](http://www.igf.edu.pl)

Institute of Oceanology  
Polish Academy of Sciences  
ul. Powstańców Warszawy 55  
81-712 Sopot  
[www.iopan.gda.pl](http://www.iopan.gda.pl)



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2. Design of geophysical investigations and carry out measurements with the Terrameter LS, ABEM
3. Preparation of scientific articles and conference presentations;
4. Regular reporting of the progress of work;
5. Preparation or contribution to publication of papers in JCR journals and conference presentations.
6. Acquiring and maintenance a thorough and up-to-date knowledge of the scientific literature related to the research aims of the project.
7. Writing regular reports on progress and presentation of the results to the project management board according to the agreed schedule.
8. Help in the maintenance of the day-to-day work of the Department of Geomorphology in the University of Silesia including organization of research, teaching and responsibility for the research equipment.

#### **Abstract**

Although there are indicative forms of the permafrost presence in periglacial areas, current research little focus on identifying their relationship to the permafrost. The planned work would focus on identifying the full possible range of landforms of periglacial environment occurring in the area of Hornsund on Spitsbergen and determining their relationship to the evolution of the active layer of permafrost and depth of permafrost. The study will use mainly the electroresistivity equipment and other tools that will be selected according to needs analysis carried out by the PhD student. The basic tasks of the work will be 1) to ascertain the full set of forms of sculpture, whose presence could be related to the presence of permafrost in the area of Hornsund. 2) establish a link identified forms of permafrost and active layer, 3) determine the existing regularity. Test results should be developed in conjunction with existing research based on available literature. The end result is to determine the above relationships and present them with regard to a GIS model.

#### **Other information:**

1. The thesis supervisor will be Dr.hab. Wojciech Dobinski (University of Silesia).
2. In addition to the candidate's application submitted to the KNOW it would be mandatory to send CV with a list of publications or other papers and the motivation letter with a summary of proposal of research in the project (max. 2 pages) to:  
wojciech.dobinski@us.edu.pl
3. Contact: polarknow@us.edu.pl – Leading National Research Centre (Ph.D. D. Ignatiuk)



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