



Międzynarodowa Środowiskowa Szkoła Doktorska
przy **Centrum Studiów Polarnych**
w Uniwersytecie Śląskim w Katowicach

ul. Bedzińska 60
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No. of PhD project: IEDS/2023/US/01

Title of PhD project: *Recognition of landslide geohazards in relation to the relief and climate of North Vietnam*

The leading unit: Institute of Earth Sciences University of Silesia in Katowice (INoZ UŚ), Sosnowiec

Requirements:

1. Master's degree in geomorphology, physical geography, meteorology and climatology, GIS and cartography, geology, geophysics or related sciences.
2. Good knowledge of programming languages and statistical packages (R or Python) or willingness and ability to quickly acquire practical knowledge in this area.
3. Good knowledge of GIS programs (SAGA GIS, QGIS, or ArcGIS) or willingness and ability to quickly acquire practical knowledge in this area.
4. Good knowledge of English in writing and speaking.
5. High motivation and no formal contraindications for a research internship at the Institute of Geology of the Vietnamese Academy of Sciences in Hanoi, Vietnam.
6. High motivation to conduct research and the ability to work in a team.
7. Scientific and research achievements, in particular papers published in natural science journals and conference presentations, will be an additional asset.

Tasks description:

1. Comparative analysis of terrain models in terms of landslide vulnerability in the area of northern Vietnam;
2. Acquisition, processing and analysis of available digital elevation models;
3. Analysis of the relationship between the occurrence of landslides and potential causative factors, i.e. geology, relief, precipitation, etc.;
4. An attempt to develop predictive models;
5. Development of landslide vulnerability maps in selected areas of Vietnam;
6. Preparation, organization and conduct of field and office research;
7. Preparation of scientific articles and conference presentations;
8. Regular progress reporting;
9. Help in everyday scientific and didactic tasks of the unit.



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Abstract:

The scope of modeling and prediction of landslide hazards in Vietnam is still incomplete. The main reason for this is the lack of data that allows for a comprehensive analysis of the problem. The aim of the project is to expand knowledge on landslide geohazards in the subtropical/tropical zone of North Vietnam. The analysis in this respect will allow the assessment of the impact of climate, relief and human pressure on landslide hazards. For this purpose, meteorological data, digital elevation models, land use and land cover data will be analysed. The assumptions of the proposed doctoral thesis are part of a larger project implemented in cooperation with specialists from the Institute of Geology of the Vietnamese Academy of Sciences. The scope of activities will be specified after selecting the appropriate candidate.

Other information:

The work will be carried out under supervision of: dr. hab. Łukasz Pawlik prof. UŚ, e-mail: lukasz.pawlik@us.edu.pl, Institute of Earth Sciences, University of Silesia in Katowice and dr. Paweł Kroh, e-mail: pawel.kroh@up.krakow.pl, Institute of Biology and Earth Sciences, Pedagogical University of Krakow.

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Information on the IEDS admissions: https://www.mssd.us.edu.pl/en/admission_2023_2024-reg/