DSinGIS

Doctoral Studies in GeoInformation Sciences

There are several **challenges** in Uzbekistan, where GeoInformation Sciences (GISc) may efficiently support solutions, for such issues as climate change, land degradation, water scarcity, the chronic lack of water treatment or the growing threat to air quality. The **aim** of the project is to support Uzbekistan in sustainable development by Geoinformation Science and Technology.

Objectives

1) Develop new doctoral programme, innovative doctoral courses and methodologies, supporting continuing professional development on the applications in geoinformatics.
2) Build advanced ICT-based learning and research environment, strengthening the relations between higher educational institutions (HEIs) and research institutions (RIs).
3) Enhance the scientific level of academic and research staff at UZ partner universities in the field of geoinformatics.
4) Orientate UZ scientists into interdisciplinary geoinformation science in doctoral studies and research.
5) Improve involvement of UZ academic staff and doctoral candidates in GISc into world-wide scientific community, strengthening internationalization of HEIs/Ris.

Partners

1) Obuda Univ. (OU)
2) Paris Lodron Univ. of Salzburg (PLUS)
3) Royal Inst. of Technology (KTH)
4) Leibniz Inst. of Agricultural Development in Transition Economies (IAMO)
5) Tashkent Inst. of Irrigation and Agricultural Mechanization Engineers (TIIAME)
6) National Univ. of Uzbekistan named after Mirzo Ulug'bek (NUU)
7) Karakalpak State Univ.y named after Berdakh (KSU)
8) Samarkand State Architectural and Civil Engineering Inst. (SamSACI)
9) Tashkent Inst. of Architecture and Construction (TIAC)
10) State Committee of Republic of Uzbelistan om Land Resource (YGK)
11) Ministry of Higher and Secondary Specialized Education (MHSSE)
12) Supreme Attestation Commission under the Cabinet of Ministers (SAC)

PhD programme courses to be developed

Common Courses

1) Spatial representations and spatial data infrastructures
2) Spatial statistics
3) Global Navigation Satellite Systems
4) Visually interfacing with spatial information
5) Research methodology and scientific communication
6) Advanced remote sensing and digital image processing

Geodesy specialization

7) Geodetic Reference Systems
8) Advanced theory of errors
9) Satellite gravimetry & advanced physical geodesy
10) 3D laser scanning and mapping by UAV

Geoinformatics specialization

11) Geo-databases and distributed architectures
12) Advanced thematic mapping
13) Advanced spatial analyses
14) Integration of remote sensing and GIS

GIS applications specialization

15) Spatial decision support in land management
16) Land use economics
17) Spatial simulation of environment
18) Sustainable resource management

Glossary: A GIS glossary is available containing 1000+ definitions of geospatial terms in Uzbek language. This is in line with national strategy on building scientific community and enhancing the quality of publications. The unified terminology is great help in module development. However, the impact of the glossary is much wider, indirectly this will help to translate knowledge to bachelor and master level students in GISc. http://www.unigisopen.hu/DSinGIS/reader/glossary.html

For more information see:
http://www.dsingis.eu/ &
http://geoinformatics.uz/dsingis/

Project coordinator
Dr Lorant Foldvary
Obuda University (OU)
Email: foldvary.lorant@amk.uni-obuda.hu

Uzbek national coordinator
Mr Ilhom Abdurahmanov
Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME)
Email: ilhom.isakovich@gmail.com