### Aims

The project aims to support Uzbekistan in sustainable development by geoinformation sciences (GISc)

# Objectives

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



# Project consortium

- Obuda University (OU), Hungary
- Paris Lodron University of Salzburg (PLUS), Austria
- Royal Institute of Technology (KTH) Stockholm, Sweden
- Leibniz Institute of Agricultural Development in Transition Economies (IAMO), Halle, Germany
- Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME) Tashkent, UZ
- National University of Uzbekistan named after Mirzo Ulug'bek (NUU), Tashkent, UZ
- Karakalpak State University named after Berdakh (KSU) Nukus, UZ
- Samarkand State Architectural and Civil Engineering Institute (SamSACEI) Samarkand, UZ
- Tashkent Institute of Architecture and Civil Engineering (TIAC) Tashkent, UZ

# Associated partners

- State Committee of Republic of Uzbekistan on Land Resource, Tashkent, UZ
- Ministry of Higher and Secondary Specialized Education, Tashkent, UZ
- Supreme Attestation Commission under the Cabinet of Ministers, Tashkent, UZ

# Outputs

- International Cooperation Agreements
- Accredited Doctoral programme
- o 8 courses in English, 10 courses in UZ
- 5 PhD research labs, Joint Research Centre
- o Glossary of geospatial terms in UZ
- Training in management; on learning support methodologies; on supervision and research methodologies; Summer School; Doctoral candidates studying in the EU
- o Regular scientific GI conferences
- o Quality Enhancement Programme,
- Self-evaluation reports on Internationalization
- o Website, Awareness building events



#### Contacts

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### **New courses**

According to the aims of the project eighteen courses were developed in Moodle LMS for e-learning.

### I. Common courses (in English)

- Spatial representations and spatial data infrastructures
- Spatial statistics
- Global Navigation Satellite Systems (GNSS)
- Visually interfacing with spatial information
- Research methodology and scientific communication
- Advanced remote sensing and digital image processing



**II. Courses for specializations** The courses are organised into 3 specialisations as follows:

# II/1. Geodesy

- o Geodetic Reference Systems
- Advanced theory of errors
- Satellite gravimetry & advanced physical geodesy (in English)
- $\circ\quad$  3D laser scanning and mapping by UAV



- II/2. Geoinformatics
- Geo-databases and distributed architectures
- o Advanced thematic mapping
- Advanced spatial analyses
- Integration of remote sensing and GIS
- II/3. GIS applications
- Spatial decision support in land management
- $\circ \quad \text{Land use economics} \quad$
- Spatial simulation of environment
- Sustainable resource management (in English)





Erasm of the **GeoInformation Sciences** sustainable development support Uzbekistan in Studies in Doctoral 2

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