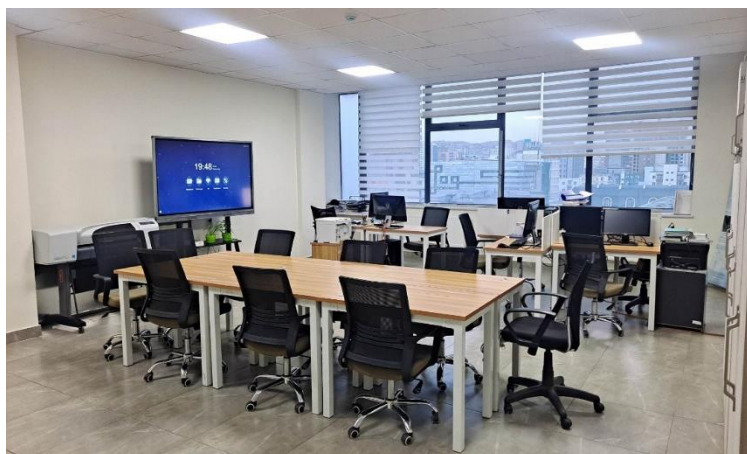


## 1. TRIMBLE TRAINING AND RESEARCH LABORATORY



**Main purpose** is to support graduate students' research and organize joint trainings, seminars and research activities with private and public entities engaged in the field of geodesy.

### **Organizations and researchers who can cooperate with us:**

It is possible to cooperate with professional associations, enterprises, engineers and researchers operating in the field of geodesy, geographic information system, and land administration.

### **Works that can be done in the laboratory:**

- Master's and doctoral studies and research activities
- Joint trainings, seminars and research activities with professional associations and enterprises operating in field of geodesy and cartography
- Researchers' measurement, mapping and controlling process
- Projects and contracted works

**Capacity:** 3D laser scanner, Trimble farm electronic tacheometer and GPS set equipment for monitoring, testing, measurement and research. It also has 10 processing computers and official software.

**Activity:** Advanced training and research

**Address:** Room number 607, 8<sup>th</sup> building of Mongolian University of Science and Technology

## 2. ESRI GEOGRAPHIC INFORMATION SYSTEMS LABORATORY



**Main purpose:** Aerial, space and digital image processing and a database creation.

**Organizations and researchers who can cooperate with us:**

Practitioners and researchers from the field of geodesy, land administration, geology and hydrogeology.

**Works that can be done in the laboratory:**

- Remote sensing and geographic information system
- Aerial image processing
- Photogrammetry
- Digital mapping
- Mapping of urban areas
- GNNS
- Measurement and mapping

**Capacity:** There are 30 computers to be used for laboratory works of the courses of professional programs, Geodesy and Land Administration, and their measurement and mapping.

**Activity:** Training

**Address:** Room No 1-318, School of Geology and Mining, Main Campus of Mongolian University of Science and Technology

## TRAINING FIELD OF GEODESY

The training field of Geodesy is located at the mouth of Ovur Gorkhi of Terelj National Park in Khan Khentii Strictly Protected Area, 65 km from Ulaanbaatar (Figure 1).

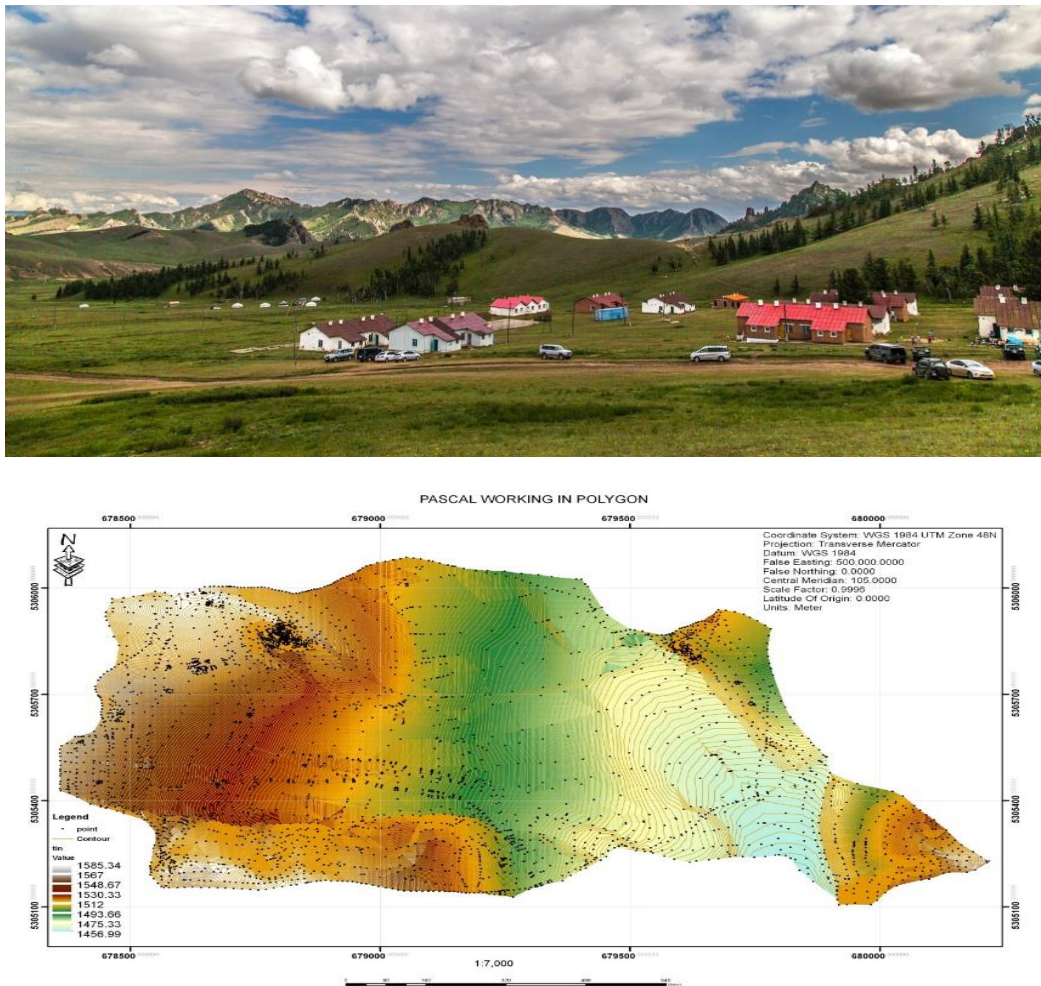


Figure 1. Training field at Gorkhi

This field was first established in 1970 to carry out training practice of Geodesy. In 1983, the first geodetic network was created on the Gorkhi training field with the accuracy of the 2<sup>nd</sup> class of triangulation based on the system of local coordinates and elevation to be used for the training work (Figure 2)

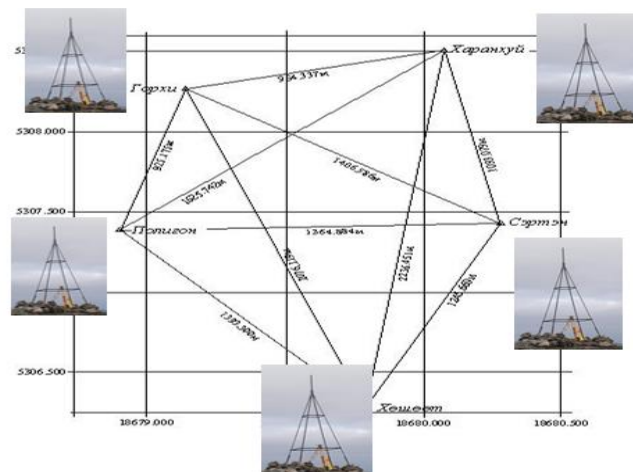


Figure 2. Scheme of triangulation points



The students perform geodetic practice including surveying and processing tasks to learn to build the geodetic basis of the geodetic thickening network and large-scale topographical mapping, mapping, field leveling, and drawing the road route in professional level at the Gorkhi training field every summer (Figure 3).



Figure 3. Students' practice

The Gorkh training field has two houses with eight rooms each with a capacity of 100 students as well as another separate rooms for instructors to stay, surveying equipment to store and lesson to teach (Figure 4).



Figure 4. Two houses for the students

The Gorkh training field is located in a beautiful natural site with forests, cliffs, and mountains with clean air, a cave where water crystals were used to be mined, a well with pure groundwater, and a cellular network so that students will enjoy to study here. During the internship, students will live independently by preparing and cooking their own food and cleaning their houses as well as they will be able to form a community and work as a team.

Many interesting events are waiting for you to experience such as professional, art and sports competitions among the teams formed by students, as well as hiking trips to beautiful natural places (Figure 5).



Figure 5. The moments to start the professional competition among students

### International Summer Internship of Applied Geodesy

Since 2012, in cooperation with Novosibirsk Academy of Geodesy, we have been conducting "Applied Geodesy", international introductory practice, annually at the Gorkh training field and the Siberian Academy of Geodesy in Novosibirsk, Russia (Figure 6).



Figure 6. Joint practice of teachers and students at the training field of Novosibirsk Academy of Geodesy

Teachers and students are exchanging experience and performing geodetic surveying and mapping together at the Russian training field.



Figure 7. At the training field of Novosibirsk Academy of Geodesy, Russia



Students studying under the International Students Exchange Program are given an opportunity to engage in joint internship at professional organizations and companies, as well as in training field.



Figure 8. Students are interning under International Students Exchange Program

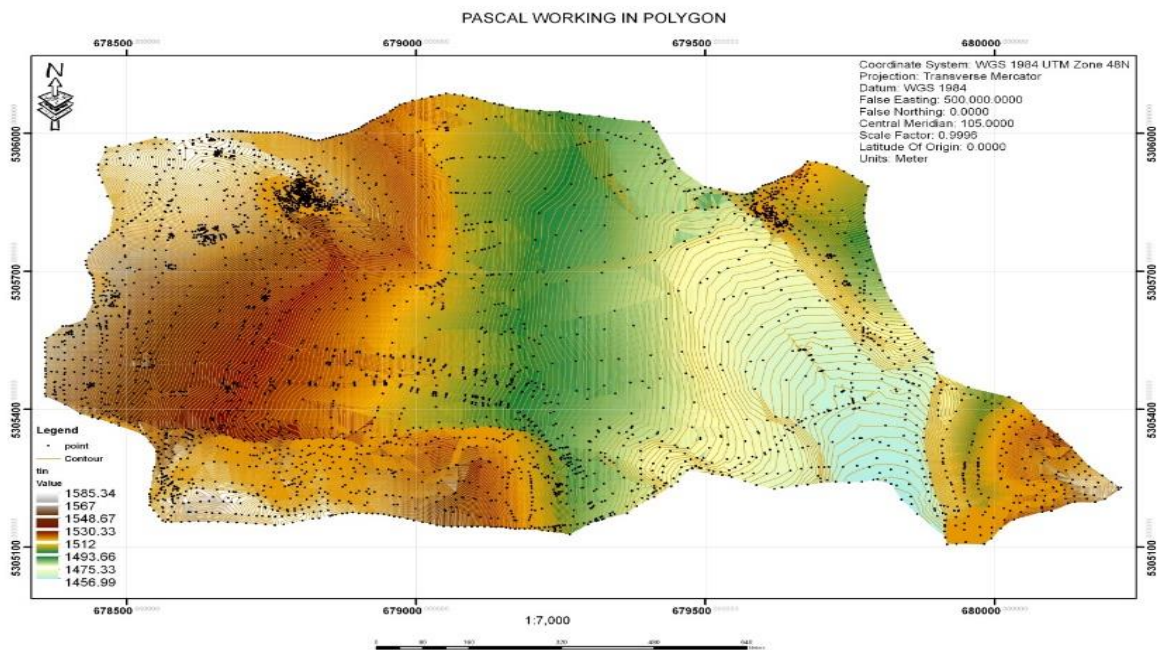


Figure 9. The results of geodetic survey and mapping of students interned by Student Exchange Program