



Co-funded by the
Erasmus+ Programme
of the European Union

561902-EPP-1-2015-1-SE-EPPKA2-CBHE-JP

Modernizing geodesy education in Western Balkan with focus on competences and learning outcomes (GEOWEB)

New GNSS equipment for Surveying laboratory, October 2017

During the Erasmus+ project two Trimble R8s GNSS Slate Set were purchased. They complete the existed instruments and offer a number of new possibilities for the student exercises and collecting the data for their practice and final work.



Fig. 1: Two new receivers at the Surveying Laboratory

GNSS positioning techniques have been extensively applied in the context of a large number of courses at the Department of Geodesy and Geoinformatics, Faculty of Civil Engineering in Belgrade, both on the primary and master studies, such as:

BSc courses

1. Tehnike geodetskih merenja-Techniques of geodetic measurements
2. Praktična nastava iz premera - Plane surveying, field practice
3. Globalni navigacioni satelitski sistemi - Global navigation satellite systems
4. Geodetski premer 3 - Plane surveying 3
5. Praktična nastava iz inženjerske geodezije - Engineering surveying, field practice

MSc courses

6. Geodetske referentne mreže - Geodetic reference network
7. Praktična nastava iz geodezije - Field practice in geodesy
8. Geodezija u industriji - Engineering Surveying in industry

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9. Obezbeđenje kvaliteta geodetskih merenja - Quality assurance of geodetic measurements

The students use GNSS positioning within the practical work of surveying, geodesy and engineering geodesy in which they solve practical tasks, which are designed to facilitate the data acquisition and initial field experience, facilitating their integration into the real market economy.

Figure 2 shows an example of task within practical training where the students produce detailed topographic plan of the assigned area.

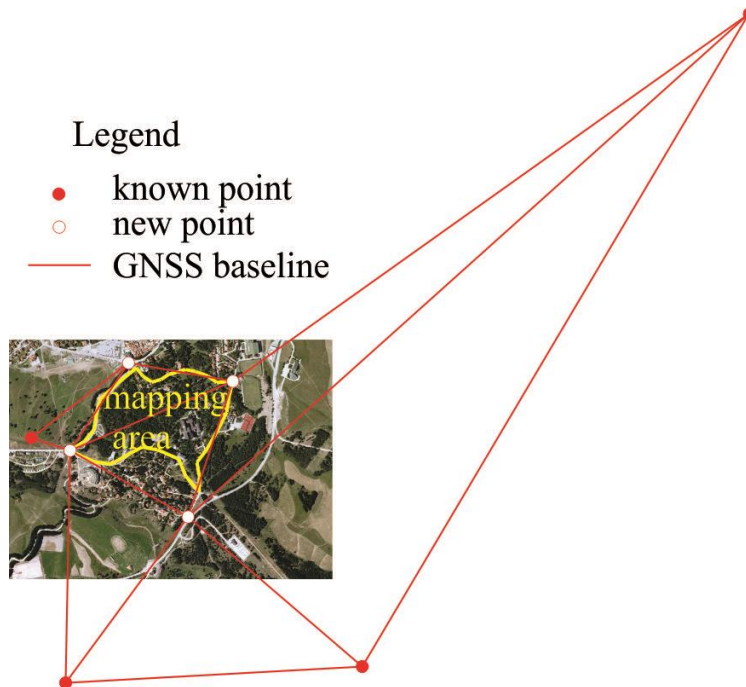


Fig. 2. Task of practical training in geodetic surveying at field practice

The project assignment requests that the available geodetic network should be improved with four new points using the relative static GNSS positioning and then the students make a detailed topographic surveys of a designated area using GNSS RTK Total Stations.



*Fig. 3 GNSS RTK using the total station Trimble R8 GNSS
at the field practice in Zlatibor mountain*

The result of the task is a detailed topographic plan of the assigned area with precisely defined positions of characteristic terrain features and objects and vertical representation of terrain suitable for various technical applications.

Belgrade, September 2017

Local coordinator

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