DEPARTMENT OF SURVEYING

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I. STAFF

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II. EQUIPMENT

II.1 Teaching and Research Laboratories

Surveying Laboratory - Practical and experimental courses in Surveying and Engineering Surveying are provided. A testing field of more than 100 signalised points, 10 measuring pillars and other measuring equipment are at the students‘ disposal.

Photogrammetry Laboratory - research laboratory focusing on analytical photogrammetry methods. Teaching photogrammetry subjects, graduate and Ph.D. theses.
Počúvadlo Field Campus - in the vicinity of Banská Štiavnica (Central Slovakia). The campus is used for training in basic surveying technologies. A field of more than 50 stabilised measuring points in the state coordinate system is at the students‘ disposal.

Gabčíkovo HS Field Campus - consists of a group of industrial structures (hydroelectric station, lock gates, turbines, etc.). Automatic measuring systems and control points for deformation measurement are installed. Practical and experimental courses and measurements for engineering surveying subjects are supervised there.

II.2 Special Measuring Instruments and Computers

More than 100 theodolites, levels, one special Trimble DiNi 12 precision levelling instrument, one special Trimble 3602 DR antiflare electronic tacheometer and other electronic tacheometers are at the students' disposal. They can use the Faculty's computer laboratories and multi-licence software as well as the Department's 14 computers and special software.

ORIENT analytical adjustment software is used for the resolution of single, n-pictures, and photogrammetric adjustment problems and is based on the principle of projective transformation (collinearity condition) of photographs into a reference system, where they are mutually adjusted (in a block) by means of the bundle method. This software was developed at the Vienna Technical University at the Institute for Photogrammetry and Remote Sensing. The Leica Digital Video Plotter (DVP) is a fully digital system. The DVP is a simple and inexpensive digital photogrammetric station with easy-to-learn software and low maintenance costs. It is an ideal instrument for educational institutions to demonstrate the principles of analytical and digital photogrammetry.

The equipment for testing and calibrating accelerometers was developed and constructed by the Department. Three lasers, 10 electronic tiltmeters and 16-channel registration equipment can be used for special engineering surveying courses, diploma theses and Ph.D. theses.

The CCD-based IL 2000 measuring system was constructed at the Department. The light trace or shadow illuminated by measured objects can be detected and processed by the system. The measuring range of the system is given as 0-100 mm. The 22.521 mm size of the CCD is magnified by an objective lens and diffuser. The system is used for conducting measurement tasks in special engineering surveying courses, diploma theses and Ph.D. theses.

III. TEACHING

III.1 Graduate Study

Subject	Semester	Hours Per Week		Lecturer
		Lectures	Seminars	
Surveying I	1	3	3	Š. Sokol
Surveying in Building Construction	1	2	2	V. Staněk, G. Hostinová
History of Civil Engineering and Surveying	1	2	0	J. Ježko
Surveying II	2	2	3	Š. Sokol

Surveying in Civil Engineering	2	3 – 3	A. Kopáčik
Surveying Camp	2	2 weeks	J. Ježko
Field Practise in Surveying	2	1 week	A. Kopáčik
Surveying III	3	3 - 3	Š. Sokol
Engineering Surveying	4	2 - 3	V. Staněk
Surveying for Water Management	4	2 - 3	G. Hostinová
Surveying for Engineering Construction	4	2 - 3	V. Staněk
Engineering Surveying Camp	4	2 weeks	V. Staněk
Professional Practice	4	3 weeks	J. Ježko
Surveying Camp for Engineering Construction	5	1 week	V. Staněk
Surveying Camp for Water Management	5	1 week	G. Hostinová
Geodesy, Cartography and Cadastre	5	3 – 2	J. Ježko
Photogrammetry and Remote Sensing	6	2 - 3	P. Bartoš
B. Sc. Project	6	0 – 2	
Engineering Surveying	7	2 - 3	V. Staněk
Applied Analytical Photogrammetry	8	2 - 2	P. Bartoš
Surveying in Underground Areas	8	2 – 2	A. Kopáčik
Theory of Measurement Processing	8	2 - 2	O. Nánásiová
GIS for Urban Management	9	2 - 1	P. Bartoš, A. Kopáčik
Measuring Systems in Engineering Surveying	9	2 - 2	A. Kopáčik
Industrial Surveying	9	3 – 2	Š. Lukáč
Special Seminar	9	1 – 2	
Photogrammetry and Remote Sensing	9	2 – 3	P. Bartoš
Photogrammetric Mapping and GIS	9	3 – 2	P. Bartoš
Engineering Surveying Camp	9	2 weeks	A. Kopáčik
Legislation of Geodetic Works	10	2 – 1	Š. Lukáč
Special Seminar	10	0 – 6	
Complex Geodetic Project	10	1 - 5	
Diploma Work	10	5 weeks	

IV. RESEARCH TARGETS

Research activity focuses on the main departmental subjects, especially engineering surveying and photogrammetry. In engineering surveying, the main topics are measurement and prediction of deformations, optimization of design and measurement of local surveying control networks, and design and testing of automatic measurement systems. The results are applied in the construction industry (nuclear power plants, dams, bridges, etc.). Research activities in photogrammetry and remote sensing are focused on analytical photogrammetry and its application in architectural monument conservation, environmental protection, water management, and energy exploration.

V. RESEARCH PROJECTS

1. Research Grant Registration No. 1/1153/04: Monitoring geodynamic processes with integrated measurement systems (P. Bartoš, et al.)

2. Research Grant Registration No. 1/3308/06: Application of precise navigating algorithms and systems for monitoring building structures (A. Kopáčik, et al.)

VI. COOPERATION

VI.1 Cooperation in Slovakia

1. Faculty of Mining, Ecology, Process Control and Geotechnology, TU Košice
2. Faculty of Civil Engineering, TU Košice
3. Department of Surveying, TU Žilina
4. Research Institute of Geodesy and Cartography, Bratislava
5. Geodesy, Cartography and Cadastre Authority of the Slovak Republic, Bratislava
6. Department of Geotechnics, STU Bratislava
7. Department of Engineering Geology, UK Bratislava
8. Institute of Geodesy and Cartography, Bratislava
9. Institute of Metrology, Slovak Academy of Sciences, Bratislava
10. Slovak Roads Office, Bratislava
11. Slovak Electrical Corporation, Trenčín
12. Slovak Institute of Technical Normalization, Bratislava
13. GeoExperts, Ltd., Žilina
14. Geological State Institute of Dionýz Štúr, Bratislava
15. SVP Banská Štiavnica, Danube River Basin, Gabčíkovo Factory
16. SE, Inc., Water Power Station Factory, VS Gabčíkovo
17. Chamber of Surveyors and Cartographers
18. Slovak Union of Surveyors and Cartographers
19. Department of Concrete Structures and Bridges, STU Bratislava
20. Geoteam, Ltd., Bratislava, Authorized Distributor of Trimble
21. Geotech, Ltd., Bratislava, Trade Agency and Service of Leica
22. Expert_for_3D_Landscape, Ltd., Bratislava

VI.2 International Cooperation

1. Institute of National Surveying and Engineering Geodesy, TU Vienna, Austria
2. Institute for Photogrammetry and Remote Sensing, TU Vienna, Austria
3. Department of Surveying, Cartography and Descriptive Geometry, Politechnika Lodž, Poland
4. Institute of Geodesy and Geophysics of the Hungarian Academy of Sciences, Sopron, Hungary
5. Department of Geodesy, VUT Brno, Czech Republic
6. Department of Surveying, Mining – Geological Faculty, TU Ostrava, Czech Republic
7. Palacky University of Olomouc, Department of Mathematical Analysis and Mathematical Applications, Czech Republic
8. Department of Geodesy, TU Munich, Germany
9. College of Geoinformatics, University of West Hungary, Székesfehérvár, Hungary
10. Department of Engineering Surveying, TU Dresden, Germany
11. CTU, Prague, Czech Republic
12. TU Graz, Austria

VI.2.2 Visits of Staff Members and Postgraduate Students to Foreign Institutions

1. Kopáčik, A. - CTU Prague, Czech Republic, 2 days (January 2006)
2. Staněk, V. – CTU Prague, Czech Republic, 2 days (January 2006)
3. Hašková, V. - VUT Brno, Czech Republic, 1 day (January 2006)
4. Zámečníková, M. – Fachhochschule Oldenburg, Germany, 4 days (Jan/Feb 2006)
5. Sokol, Š. – VUT Brno, Czech Republic, 1 day (February 2006)
6. Staněk, V. –VUT Brno, Czech Republic, 1 day (February 2006)
7. Sokol, Š. – Bridge over the River Lajta, Hungary, 1 day (March 2006)
8. Bajtala, M. - Bridge over the River Lajta, Hungary, 1 day (March 2006)
9. Ježko, J. - Bridge over the River Lajta, Hungary, 1 day (March 2006)
10. Sokol, Š. – Bridge over the River Lajta, Hungary, 1 day (March 2006)
11. Bajtala, M. - Bridge over the River Lajta, Hungary, 1 day (March 2006)
12. Ježko, J. - Bridge over the River Lajta, Hungary, 1 day (March 2006)
13. Kopáčik, A. – Ekovizig Tokaj, Sarospatak, Hungary, 2 days (April 2006)
14. Kopáčik, A. – Geo Budapest, Hungary, 2 days (April 2006)
15. Sokol, Š. - TU Ostrava, Czech Republic, 1 day (May 2006)
16. Kopáčik, A. – FIG Offige ACCO, The Netherlands, 3 days (May 2006)
17. Kopáčik, A. – TU Vienna IAG and FIG, Austria, 3 days (May 2006)
18. Bartoš, P. – VUT Brno, Czech Republic, 1 day (May 2006)
19. Bartoš, P. - CTU Prague, Czech Republic, 1 day (June 2006)
20. Staněk, V. – VUT Brno, Czech Republic, 2 days (June 2006)
21. Sokol, Š. – VUT Brno, Czech Republic, 1 day (June 2006)
22. Bartoš, P. – VUT Brno, Czech Republic, 1 day (June 2006)
23. Kopáčik, A. – VUT Brno, Czech Republic, 1 day (June 2006)
24. Kopáčik, A. – VUT Brno, Czech Republic, 2 days (June 2006)
25. Kopáčik, A. – InterGeo 2006, Germany, 2 days (October 2006)
26. Lukáč, Š. – FIG Munich, Germany, 8 days (October 2006)
27. Bartoš, P. - TU Ostrava, Czech Republic, 1 day (October 2006)
28. Kopáčik, A. – ISM Leoben, Austria, 1 day (November 2006)
29. Staněk, V. - CTU Prague, Czech Republic, 2 days (November 2006)
30. Kopáčik, A. - VUT Brno, Czech Republic, 1 day (November 2006)
31. Kopáčik, A. – NGK Munich, Germany, 1 day (November 2006)
32. Ježko, J. – NTM Prague, Czech Republic, 2 day (December 2006)

VII. THESES

VII.1 Graduate Theses

No.	Student´s Name	Title	Supervisor
1.	Viera Babecová	Mathematical-Statistical Analysis of Local Geodetic Networks	A. Kopáčik
2.	Anna Bakošová	Model Analysis Obtained by Laser Scanner Technology	A. Kopáčik
3.	Martin Bojsa	Environmental Impact on the Measurement Accuracy in a Geodetic Network	Š. Sokol
4.	Andrej Borza	Digital Photogrammetry and Its Exploitation in Documentation of Cultural Monuments	P. Bartoš

5.	Martin Bunček	Geodetic Support in Loading Tests of Building Structures	V. Staněk
6.	Adam Demény	Stability Testing of Digital Levelling Instruments	Š. Sokol
7.	Vladimír Dzurilla	Acquisition of Coded Data for the Purpose of Creating Specific Map	Š. Sokol
8.	Juraj Fabián	Geodetic Works of a Water Reservoir Building for Šachtičky Ski-centre	A. Kopáčik
9.	Jozef Hanousek	Stability Testing of Universal Total Stations	Š. Sokol
10.	Miroslava Humajová	Loading Test Project for a Bridge Structure	G. Hostinová
11.	Jaroslav Chudík	Geodetic Works in Loading Tests of Bridge Structures	J. Ježko
12.	Michal Janíček	Digital Stereo-Photogrammetry as a Tool for Measuring a Facade	M. Fraštia
13.	Ondrej Jánov	Photogrammetric Compression of Control Points Using Blocked Aero-Triangulations	P. Bartoš
14.	Anna Jelchová	Project for Measuring Vertical Displacements of Bridge Structures	G. Hostinová
15.	Milan Kavulič	Analysis of Measurement Results of Horizontal Displacements of Waterworks Ruzin I.	V. Staněk
16.	Igor Kopanica	Staking Out and Monitoring Building Structures	V. Staněk
17.	Július Kriš	Methods of Determining Areas	Š. Sokol
18.	Patrik Krumpál	Photogrammetric Modelling of the Human Face	M. Fraštia
19.	Miroslav Lipták	Elimination of the Systemic Effect of the Environment in the Determination of Elevation	Š. Sokol
20.	Peter Lužák	Long-Term Spatial Monitoring of Brestovec Waterworks	V. Staněk
21.	Jozef Mišina	Determination of Geometric Parameters of a Stack	J. Ježko
22.	Pavol Mišto	Testing Electronic Tacheometers with Passive Reflections	J. Ježko
23.	Lucia Namešpetrová	Acquisition of Coded Data for the Purpose of Creating Basic Digital Maps	A. Kopáčik
24.	Michaela Nemcová	Spatial Monitoring of the Water Locks of Gabčíkovo Waterworks	V. Staněk
25.	Ján Novák	Geometric Quality of a Model from a Free Network and from a Direct Perspective Transformation to the Reference Coordinates	M. Fraštia
26.	Michal Pastír	Analysis of Accuracy of Contour Processing Using Software	Š. Sokol
27.	Peter Petalík	Geodetic Monitoring of Selected Structures of the Nuclear Power Plant in Slovakia	G. Hostinová
28.	Katarína Popluhárová	Impact of the Distance between an Object and Laser Scanner on the Geometric Parameters of a Model	A. Kopáčik
29.	Jana Rindošová	Long-Term Measurement and Interpretation of Vertical Displacements of a Highway Bridge Structure	G. Hostinová
30.	Martin Riška	Reconstruction of an Object from Various Digital Images	M. Fraštia
31.	Peter Roziak	Photogrammetric Compression of Control Points Using Independent Models Method	P. Bartoš

32.	Marek Slivovič	Measurement of Vertical Displacements of a Shopping Centre	J. Ježko
33.	Dušan Stehel	Calibration of a Table Scanner	M. Fraštia
34.	Ján Šajban	Experimental Verification of Levelling Instruments from the Aspect of Measuring Vertical Displacements	G. Hostinová
35.	Anton Šimončič	Data Acquisition for Reinstating a Rock Cut Project Using Digital Photogrammetry	P. Bartoš
36.	Jozef Štefanica	Geodetic Monitoring of a Highway Bridge Structure	V. Staněk
37.	Katarína Timurová	Creation of the Model of a Crane Track Using the Laser Scanning Method	A. Kopáčik
38.	Jozef Václavík	Testing and Calibration of Horizontal Circles of Theodolites	J. Ježko
39.	Andrea Včelková	Proposed Structure and Technology for Creating a Digital City Map	A. Kopáčik
40.	Matej Zámečník	Monitoring Technical Safety at Čierny Váh Waterworks	V. Staněk
41.	Miroslav Žáčik	Proposed Structure and Technology for Creating a Digital Factory Map	A. Kopáčik

VII.2 Bachelor Theses

No.	Student´s Name	Title	Supervisor
1.	Peter Antalík	Testing Rotating Laser Levelling Instruments	P. Vybíral
2.	Veronika Barančová	Monitoring Geometric Parameters of a Building Structure	P. Kyrinovič
3.	Lenka Beňová	Traverse Adjustment Methods	A. Kopáčik
4.	Ľuboš Bogár	Determination of the Verticality of a Stack	M. Zámečníková
5.	Jozef Čierny	Accuracy of Projective Rectification According to Scale Number	A. Matyšáková
6.	Jaromír Dvořák	Digital Single-Image Photogrammetry in Measuring Historical Building Structures	A. Matyšáková
7.	Ján Gáborčík	Stability of Levelling Instruments for Technical Levelling	P. Vybíral
8.	Peter Glogovský	Verification of a Theodolite's Accuracy	V. Hašková
9.	Michal Halinár	Creation of a Specific Map in the Area of STU in Trnávka	M. Zámečníková
10.	Igor Horváth	Exploitation of an Electronic Tacheometer with Passive Reflection	M. Bajtala
11.	Zoltán Kľučka	Horizontal and Vertical Measurements of a Family House	A. Kopáčik
12.	Ľuboš Kormaník	Construction and Measuring of a Point Network in the Area of STU in Trnávka	M. Zámečníková
13.	Ján Kotuľ	Analysis of Errors in Horizontal and Vertical Angle Measurements	M. Pirháč
14.	Ján Kráľ	Digital Levelling Instruments and Exploitation Possibilities	M. Bajtala
15.	Matúš Nemčík	Temporary Station Method	A. Kopáčik

16.	Viktor Opál	Trigonometric Determination of Heights at Short Distances	P. Vybíral
17.	Ernest Riegl	Exploitation of Manual Navigation Instruments GPS	J. Ježko
18.	Martina Ružičková	Testing Levelling Instruments for Precise Levelling	P. Vybíral
19.	Peter Šuran	Geodetic Works in Shopping Centre Construction	M. Bajtala
20.	Lenka Truhanová	Estimating Parameters of the First and Second Orders in a Positional Network	P. Kyrinovič
21.	Júlia Turanová	Analytical Solution to the Horizontal and Vertical Parameters of a Road Axis	P. Kyrinovič
22.	Filip Varinský	Geodetic Works in New Building Realization	M. Bajtala
23.	Ľubica Vinceová	Rectifying a Facade Using Digital Photogrammetry	A. Matyšáková

VIII. OTHER ACTIVITIES

VIII.1 Special Lectures

[1] BAJTALA, M., SOKOL, Š.,JEŽKO, J.: Appraisal of the Parameters of a Geodetic Network Taking into Account the Impact of Horizontal Refractions. International Conference on Geodesy and Mining Surveying. Slovakia, Stará Lesná, September 2006 (in Slovak)

[2] BARTOŠ, P.: Photogrammetry in Capital Construction and Industry. Preliminary Course for Authorized Surveyors and Cartographers. Slovakia, Bratislava, November 2006 (in Slovak)

[3] BARTOŠ, P. – FRAŠTIA, M.: Photogrammetric Methods and Their Exploitation in Engineering Surveying. Course Modern Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[4] BARTOŠ, P., FRAŠTIA, M., MATYŠÁKOVÁ, A., CHLEPKOVÁ, M.: Engineering Applications of Digital Close Range Photogrammetry. Conference on Progressive Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[5] BELIANSKY M.: Processing Analysis of a Digital Terrain. Conference on Actual Problems of Cartography, Cadastre of Real Estate and Land Consolidation. Slovakia, Bratislava, September 2006 (in Slovak)

[6] FRAŠTIA, M., BAJTALA, M., SOKOL, Š.: Photogrammetric Estimation of Spatial Shape of a Clinker Silo. International Conference on Geodesy and Mining Surveying. Slovakia, Stará Lesná, September 2006 (in Slovak)

[7] FRAŠTIA, M., PAŠKO, M., BARTOŠ, P.: UltraCam-X and UltraMap Server – The Newest Tools for Automatic Aerial Digital Mapping. Conference on Actual Problems of Cartography, Cadastre of Real Estate and Land Consolidation. Slovakia, Bratislava, September 2006 (in Slovak)

[8] HAŠKOVÁ, V.: Calibration of Horizontal Circles of Surveying Instruments. JUNIORSTAV 2006, 8th Special Graduate Study Conference. Czech Republic, Brno, 2006 (in Slovak)

[9] JEŽKO, J.: Calibration of Horizontal Circles of Electronic Surveying Instruments. Conference on Progressive Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[10] JEŽKO, J.: The History of Surveying, Geodesy and Cartography in Slovakia. 27th Symposium on the History of Geodesy and Cartography. Czech Republic, Prague, December 2006 (in Slovak)

[11] JEŽKO, J., SOKOL, Š., BAJTALA, M.: Testing and Calibration of Geodetic Instruments. International Conference on Geodesy and Mining Surveying. Slovakia, Stará Lesná, September 2006 (in Slovak)

[12] KOPÁČIK, A. – KYRINOVIČ, P.: Automatic Crane Measurement System. FIG and IAG Symposium, Deformation Measurements. Austria, Baden, May 2006 (in English)

[13] KOPÁČIK, A. – ZÁMEČNÍKOVÁ, M.: Terrestrial Laser Scanning System Testing Using Reference Bodies. FIG and IAG Symposium, Deformation Measurements. Austria, Baden, May 2006 (in English)

[14] KOPÁČIK, A.: Post-Graduate Education at SUT Bratislava. FIG Workshop on eGovernance, Knowledge Management and eLearning. Hungary, Budapest, April 2006 (in English)

[15] KOPÁČIK, A**.** – ZÁMEČNÍKOVÁ, M. – KYRINOVIČ, P.: Creating 3D Model of Hydro-Technical Structures. 23rd FIG Congress. Germany, Munich, October 2006 (in English)

[16] KOPÁČIK, A., LUKÁČ, Š., STANĚK, V.: New Technologies in Engineering Surveying. Conference on Progressive Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[17] KOPÁČIK, A.: Measurement of Displacements and Deformations of Building Structures. Course on Modern Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[18] KOPÁČIK, A.: Automated Measuring Systems - Principles, Designs, Applications. Course on Modern Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[19] KOPÁČIK, A.: Measurement of Displacements and Deformations of Structures. Preliminary Course for Authorized Surveyors and Cartographers. Slovakia, Bratislava, November 2006 (in Slovak)

[20] KOPÁČIK, A.: Analysis of Geodetic Measurements. Course on Modern Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[21] KYRINOVIČ, P.: New Technologies of Setting Local Point Fields. Course on Modern Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[22] KYRINOVIČ, P.: Verification of Geometric Parameters of Crane Tracks. Course on Modern Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[23] KYRINOVIČ, P., HOSTINOVÁ, A.: Automated Measurement of Crane Tracks. Conference on Progressive Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[24] LUKÁČ, Š.: Legal and Technical Instructions in the Field of Geodesy and Cartography. Preliminary Course for Authorized Surveyors and Cartographers. Slovakia, Bratislava, November 2006 (in Slovak)

[25] LUKÁČ, Š.: Staking Out and Verification of Geometric Parameters of Industrial Structures. Preliminary Course for Authorized Surveyors and Cartographers. Slovakia, Bratislava, November 2006 (in Slovak)

[26] LUKÁČ, Š.: Legal and Technical Instructions in the Field of Geodesy and Cartography. Course on Modern Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[27] LUKÁČ, Š.: Metrological Aspects of Geodetic Measurements. Course on Modern Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[28] SOKOL, Š.: Models for Eliminating the Effect of Refraction on Trigonometric Elevation Measurements. Conference on Progressive Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[29] SOKOL, Š., JEŽKO, J., BAJTALA, M.: Geodetic Methods of Spatial Data Acquisition. International Conference on Geodesy and Mining Surveying. Slovakia, Stará Lesná, September 2006 (in Slovak)

[30] SOKOL, Š., JEŽKO, J., BAJTALA, M.: Coded Data Acquisition for the Purpose of Creating Specific Maps. Conference on Actual Problems of Cartography, Cadastre of Real Estate and Land Consolidation. Slovakia, Bratislava, September 2006 (in Slovak)

[31] STANĚK, V.: Staking Out Building Structures. Preliminary Course for Authorized Surveyors and Cartographers. Slovakia, Bratislava, November 2006 (in Slovak)

[32] ZÁMEČNÍKOVÁ, M.: Testing Terrestrial Laser Scanners. Conference on Progressive Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

[33] ZÁMEČNÍKOVÁ, M.: Laser Measuring Systems: Their Application in Engineering Surveying. Course on Modern Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006 (in Slovak)

VIII.2 Commercial Activities for Firms and Institutions

1. Expert Measurements of Horizontal Displacements of the Ružín Water Dam – Staněk, prof.
2. Measurement of Displacements of Selected Points at the OC OPTIMA Košice Building Structure– Ježko, Ing.
3. Seminar on Progressive Technologies in Engineering Surveying – Kopáčik, prof.
4. Acceptance of EN to STN by Conversion – Kopáčik, prof.
5. Geodetic Measurement of Branisko Highway Tunnel – Staněk, prof.
6. Measurement of Specific Map for a Project Activity – Sokol, prof.
7. Measurement of Actual State of Clinker Silo in Holcim Rohožník Cement Factory– Sokol, prof.
8. Special 3D Map – Sokol, prof.
9. Measurement of Actual State of Footbridge over Váh – Sokol, prof.
10. Geodetic Records for Project Activity – Ježko, Ing.
11. Monitoring Vertical Displacements in a Winter Port – Sokol, prof.
12. Partial Monitoring System of the Geological Aspects of the Environment in the Slovak Republic – Bartoš, P.

VIII.3 Conferences and Workshops Organised

1. 14th Slovak Geodetic Days (Bratislava, November 2006, Kopáčik)
2. Modern Technologies in Engineering Surveying (Bratislava, March 2006, Kopáčik)
3. Preliminary Course for Authorised Surveyors and Cartographers (Bratislava, November 2006, Kopáčik)

IX. PUBLICATIONS

IX.1 Journals

[1] BARTOŠ, P. – GREGOR, V. – PACL, J.: Digital Models of Mountain Lakes in the Tatra. Geodetic and Cartographic Scope, 2006, No. 3, pp. 50-56. ISSN-0016-7096.

[2] KOPÁČIK, A. – ZÁMEČNÍKOVÁ, M.: Terrestrial Laser Scanners in Construction and Industry. Building, Vol. 9, 2006. No.12, pp. 34 – 38. ISSN-1335-5406.

[3] KOPÁČIK, A.: Creation of Spatial Models of Hydrotechnical Structures. Slovak Surveyor and Cartographer, Vol. 11, 2006, No. 1, pp. 5 – 12. ISSN 1335-4019.

[4] KOPÁČIK, A. – WUNDERLICH, T.: Utilización de un Sistema de Barrido por Láser en estructuras tecno-hidráulicas. TOPOGRAFIA Y CARTOGRAFIA, Topcart Revista del Colegio Oficial de Ingenieros Tecnicos en Topografia, Madrid, Vol. 23, 2006,No. 133, pp. 33 -36. ISSN 0212-9280.

IX.2 Books, Textbooks and CD-ROMS

[1] BARTOŠ, P.: Photogrammetry in Capital Construction and Industry. Preliminary Course for Authorized Surveyors and Cartographers. SUT Bratislava, 2006, 10 pp. CD- ROM, ISBN-80-227-2560-9.

[2] BARTOŠ, P. – FRAŠTIA, M.: Photogrammetric Methods and Their Exploitation in Engineering Surveying. Course on Modern Technologies in Engineering Surveying, SUT Bratislava, 2006, 14 pp. CD-ROM, ISBN-80-227-2561-7.

[3] LUKÁČ, Š.: Legal and Technical Instructions in the Field of Geodesy and Cartography. Preliminary Course for Authorized Surveyors and Cartographers. SUT Bratislava, 2006, 17 pp. CD-ROM, ISBN-80-227-2560-9.

[4] LUKÁČ, Š.: Staking Out and Verification of Geometric Parameters of Industrial Structures. Preliminary Course for Authorized Surveyors and Cartographers. SUT Bratislava, 2006, 16 pp. CD-ROM, ISBN-80-227-2560-9.

[5] LUKÁČ, Š.: Legal and Technical Instructions in the Field of Geodesy and Cartography. Course on Modern Technologies in Engineering Surveying. SUT Bratislava, 2006, 15 pp. CD-ROM, ISBN-80-227-2561-7.

[6] LUKÁČ, Š.: Metrological Aspects of Geodetic Measurements. Course on Modern Technologies in Engineering Surveying. SUT Bratislava, 2006, 15 pp. CD-ROM, ISBN-80-227-2561-7.

[7] LUKÁČ, Š., et al.: Chamber of Surveyors and Cartographers in Slovakia. Bratislava 2006, 101 pp. ISBN-80-969448-6-X.

[8] KOPÁČIK, A.: Staking Out Building Structures. Course on Modern Technologies in Engineering Surveying: SUT Bratislava, 2006, 9 pp. CD-ROM, ISBN-80-227-2561-7.

[9] KOPÁČIK, A.: Measurement of Displacements and Deformations of Building Structures. Course on Modern Technologies in Engineering Surveying. SUT Bratislava, 2006, 10 pp. CD-ROM, ISBN-80-227-2561-7.

[10] KOPÁČIK, A.: Automated Measuring Systems - Principles, Design, Applications. Course on Modern Technologies in Engineering Surveying. SUT Bratislava, 2006, 17 pp. CDROM, ISBN-80-227-2561-7.

[11] KOPÁČIK, A.: Geodetic Measurement Analyses. Course Modern Technologies in Engineering Surveying. SUT Bratislava, 2006, 19 pp. CD-ROM, ISBN-80-227-2561-7.

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[13] KYRINOVIČ, P.: New Technologies of Setting Local Point Fields. Course on Modern Technologies in Engineering Surveying. SUT Bratislava, 2006, 10 pp. CD-ROM, ISBN-80-227-2561-7.

[14] KYRINOVIČ, P.: Verification of Geometric Parameters of Crane Tracks. Course on Modern Technologies in Engineering Surveying. SUT Bratislava, 2006, 24 pp. CD-ROM, ISBN-80-227-2561-7.

[15] STANĚK, V.: Staking Out Building Structures. Preliminary Course for Authorized Surveyors and Cartographers. SUT Bratislava, 2006, 12 pp. CD-ROM, ISBN-80-227-2560-9.

[16] ZÁMEČNÍKOVÁ, M.: Laser Measuring Systems and Their Applications in Engineering Surveying. Course on Modern Technologies in Engineering Surveying. SUT Bratislava, 2006, 16 pp. CD-ROM, ISBN-80-227-2561-7.

IX.3 Conferences

[1] IGLAROVA, L.-WAGNER, P.-BARTOŠ, P.: Monitoring Road Cuts by Photgrammetric Methods. Proceedings of IAEG2006 -Engineering Geology for Tomorrow´s Cities, 10th IAEG International Congress Nottingham, September 2006, 10 pp.

[2] BAJTALA, M., SOKOL, Š., JEŽKO, J.: Appraisal of Parameters of Geodetic Network Taking into Account Impact of Horizontal Refraction. Proceedings of International Conference on Geodesy and Mining Surveying. Slovakia, Stará Lesná, September 2006. CD ROM.

[3] BARTOŠ, P., FRAŠTIA, M., MATYŠÁKOVÁ, A., CHLEPKOVÁ, M.: Engineering Applications of Digital Close Range Photogrammetry. Proceedings of Progressive Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006, pp. 95-102. ISBN 80-227-2380-0.

[4] BELIANSKY M.: Processing Analysis of a Digital Terrain. Proceedings of Conference on Actual Problems of Cartography, Cadastre of Real Estate and Land Consolidation. Slovakia, Bratislava, September 2006, pp.33 - 40. ISBN 80-227-2480-7.

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[7] HAŠKOVÁ, V.: Calibration of Horizontal Circles of Surveying Instruments. Proceedings of JUNIORSTAV 2006, 8th Special Graduate Study Conference. Czech Republic, Brno, 2006, pp. 177 – 182. ISBN 80-214-3114-8.

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[9] JEŽKO, J.: Calibration of Horizontal Circles of Electronic Surveying Instruments. Proceedings of Conference on Progressive Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006, pp. 53-60. ISBN 80-227-2380-0.

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[16] KYRINOVIČ, P., HOSTINOVÁ, A.: Automated Measurement of Crane Tracks. Proceedings of Conference on Progressive Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006, pp. 69-76, ISBN 80-227-2380-0.

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[23] ZÁMEČNÍKOVÁ, M.: Testing Terrestrial Laser Scanners. Proceedings of Conference on Progressive Technologies in Engineering Surveying. Slovakia, Bratislava, March 2006, pp. 83-94, ISBN 80-227-2380-0.