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 signalized 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 and one special Trimble DiNi 12 precision levelling instrument and 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 II	2	3	- 3	Š. Sokol
Surveying III	3	3	- 3	Š. Sokol
Surveying Camp	2	2 weeks		Š. Sokol
Engineering Surveying	4	2	- 3	V. Staněk
Engineering Surveying	7	2	- 3	V. Staněk

Surveying in Building Construction	1	2 - 2	V. Staněk, G. Hostinová
Surveying for Water Management	4	2 - 3	G. Hostinová
Surveying for Engineering Construction	4	2 - 3	V. Staněk
GIS for Urban Management	9	2 - 1	P. Bartoš, A. Kopáčik
Photogrammetry and Remote Sensing	6	2 - 3	P. Bartoš
Applied Analytical Photogrammetry	8	2 - 2	V. Gregor
Measuring Systems in Engineering Surveying	8	2 - 2	A. Kopáčik
Industrial Surveying	9	2 - 3	Š. Lukáč
Surveying Camp for Engineering Construction and Water Management	5	1 week	V. Staněk, G. Hostinová
B. Sc. Project	6	0 -2	
Engineering Surveying Camp	9	2 weeks	A. Kopáčik
Engineering Surveying Camp	4	2 weeks	V. Staněk
Special Seminar	10	1 - 6	
Complex Surveying Design	10	1 - 3	
Special Seminar	9	0 - 3	
Professional Practice	4	3 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. 1/8332/01: Integrated Measurement Systems of Data Collection and Data Processing for the Creation of Deformation Models of Building Structures and Rock Environments (2001-2003, P. Bartoš)
2. Research grant registration No. 1/8330/01: Geodetic Technologies Supporting Data Collection for the Creation of Kinematic Models of Building Constructions (2001-2002, A. Kopáčik)

VI. COOPERATION

VI.1 Cooperation in Slovakia

1. Department of Mining Surveying and Geodesy, TU Košice
2. Department of Surveying, TU Žilina

3. Research Institute of Geodesy and Cartography, Bratislava
4. Department of Geotechnics, STU Bratislava
5. Department of Engineering Geology, UK Bratislava
6. Institute of Geodesy and Cartography, Bratislava
7. Institute of Metrology, Slovak Academy of Sciences, Bratislava
8. Slovak Roads Office, Bratislava
9. Slovak Electrical Corporation, Trenčín
10. Slovak Institute of Technical Normalisation, Bratislava
11. Geofos, Ltd., Žilina
12. Geological State Institute of Dionýz Štúr Bratislava
13. SVP Banská Štiavnica, Danube River Basin, Gabčíkovo Factory
14. SE, Inc., Water Power Station Factory, VS Gabčíkovo
15. Chamber of Surveyors and Cartographers
16. Department of Concrete Structures and Bridges, STU Bratislava
17. GEOTEAM, Ltd., Bratislava, Authorized Distributor of Trimble
18. GEOTECH, Ltd., Bratislava, Trade Agency and Service of Leica

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 Automatic Control and Instrumentation, VUT Brno, Czech Republic
7. Department of Geodesy, TU Munich, Germany
8. College of Geoinformatics, University of West Hungary, Székesfehérvár, Hungary
9. Department of Engineering Surveying, TU Dresden, Germany
10. Department of Surveying, Mining – Geological Faculty, TU Ostrava

VI.2.1 Visitors to the Department

1. Univ. Prof. Dr. Ing. B. Witte – Surveying Institute, Department of Agricultural Engineering, Germany, 3 days
2. Prof. Dr. A. Brimicombe – School of Surveying, University of East London, UK, 3 days
3. Dr. hab. inž. prof. M. Czochański – Department of Geodesy, Environment, Cartography and Descriptive Geometry, Faculty of Civil Engineering, Architecture and Environmental Engineering, Technical University of Lódź, Pland, 3 days
4. Dr. inž. W. Pawlowski - Department of Geodesy, Environment, Cartography and Descriptive Geometry, Faculty of Civil Engineering, Architecture and Environmental Engineering, Technical University of Lódź, Pland, 3 days
5. Mgr. inž. R. Przewlocka – Department of Architecture, Faculty of Civil Engineering, Architecture and Environmental Engineering, Technical University of Lódź, Poland, 3 days
6. Doc. Ing. O. Švábenský, CSc. – Department of Geodesy, Faculty of Civil Engineering, Czech Republic, 3 days
7. Doc. Ing. J. Vitásek, CSc. – Department of Geodesy, Faculty of Civil Engineering, Czech Republic, 3 days

8. Doc. Ing. J. Weigel, CSc. – Department of Geodesy, Faculty of Civil Engineering, Czech Republic, 3 days
9. Doc. Ing. J. Novák, CSc. – Department of Geodesy, Faculty of Civil Engineering, Czech Republic, 3 days
10. Prof. Ing. Z. Maršík, CSc. – Department of Geodesy, Faculty of Civil Engineering, Czech Republic, 3 days

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

1. Čeryová, I. – ANGERMEIER INGENIEURE GmbH, Giebelstadt, Germany, 6 months
2. Kopáčik, A. – Department of Geodesy, TU Munich, Germany, 2 days (September 2001)
3. Kopáčik, A. – Department of Geodesy, TU Munich, Germany, 2 days (December 2001)
4. Kopáčik, A. – Department of Engineering Surveying, TU Dresden, Germany, 3 days
5. Kopáčik, A. – Institute of National Surveying and Engineering Geodesy, TU Vienna,
6. Austria, 3 days
7. Kopáčik, A. – German Union of Surveying, Fulda, Germany, 3 days
8. Kubanka, P. – ANGERMEIER INGENIEURE GmbH, Giebelstadt, Germany, 3 months
9. Lukáč, Š. – WW FIG Seoul, South Korea, 2 weeks

VI.3 Norm Creation

STN ISO 4463-1 Measurement Methods in Civil Engineering. Laying Out and Measurement. Part 1: Planning, Organisation, Measurement Process and Acceptance Conditions – Translation of the Norm (in Slovak)

STN ISO 4463-3 Measurement Methods in Civil Engineering. Laying Out and Measurement. Part 3: List of Geodetic Activities – Translation of the Norm (in Slovak)

VII. THESES

VII.1 Graduate Theses

No.	Student´s name	Title	Supervisor
1.	Peter Katona	The Use of Modern Instrumentation in Displacement Measurements	V. Staněk
2.	Michaela Korbašová, r. Tináková	Problems in the Laying Out and Control of Tall Buildings	V. Staněk
3.	Marína Žemberyová	Design of Displacement Measurement of Waterworks	V. Staněk
4.	Pavol Štefek	Long-Term Measurement of the Stability of Large Bridges	V. Staněk
5.	Martina Dobšovičová	A Congruent Model of Dam Deformation.	V. Staněk
6.	Marcel Kliment	Calibration of Non-Metric Cameras (Pentacon Six TL)	P. Bartoš
7.	Helena Machová, r. Ščevíková	Estimation of the Parameters and Characteristics of the Accuracy of a Vertical Control	Š. Sokol
8.	Matúš Mikita	Testing Reflecting Foils with the Leica and Zeiss Cameras	Š. Sokol

9.	Marek Machara	Problem in Adjusting 2D Geodetic Networks	Š. Sokol
10.	Jaroslav Varinský	Instruments for Measuring Areas	Š. Sokol
11.	Branislav Vávra	Testing the Stability of Electronic Angle Measuring Instruments	Š. Sokol
12.	Radovan Fábel	Determination of the Flatness of Bearing Surfaces of the Basin Flange of the Change and Safety Shutter of the Third Block of the Bohunice Nuclear Power Plant	Š. Sokol
13.	Róbert Trefa	Comparison of the Utility Parameters of Laser Minidistancers	A. Kopáčik
14.	Ján Benikovský	An Overview of Geodetic Activities During the Construction of Hypermarkets	A. Kopáčik
15.	Lenka Valápková	Determination of the Parameters of an Electronic Detector	A. Kopáčik
16.	Martina Rojkovičová	Determination of the Geometric Parameters of an Atypical Crane Rail	A. Kopáčik
17	Bronislava Šimonová	Digital Mapping of a Factory	A. Kopáčik
18.	Svetlana Šimonová	Photogrammetric Monitoring of the Ducové Quarry	V. Gregor
19.	Peter Brestovanský	Photogrammetric Monitoring of the Demjata Road Cutting	V. Gregor
20.	Stanislav Garaj	Photogrammetric Monitoring of the Banská Štiavnica Rock Cutting	V. Gregor
21.	Zuzana Bernátová	Photogrammetric Monitoring of Rill Erosion at the Harmanec Site	V. Gregor
22.	Pavol Dibdiak	Inspecting the Quality of Laser Instruments	J. Ježko
23.	Martin Falťan	Testing the Stability of Electronic Tacheometers	J. Ježko
24.	Marek Kramár	Inspecting the Accuracy of Levelling Instruments	J. Ježko
25.	Martin Lehocký	Control of Geodetic Work of Selected Structures at the Mochovce Power Plant	G.Hostinová
26.	Daniel Panák	Measurement and Evaluation of the Vertical Displacements of the Bridge over Kapucínska Street	G.Hostinová
27.	Peter Orosz	Geodetic Activity during the Reconstruction of a Railway Superstructure	G.Hostinová

VIII. OTHER ACTIVITIES

VIII.1 Special Lectures

1. BARTOŠ, P.: Scientific Research Activity and Improvement in the Qualifications of the Staff of the Department of Surveying from 1991-2001. Geodesy, Photogrammetry and Engineering Surveying in the Information Society, Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
2. BARTOŠ, P. – GREGOR, V.: Contribution of the Department of Surveying to the Development of Close-Range Photogrammetry in Slovakia. Geodesy, Photogrammetry and Engineering Surveying in the Information Society, Bratislava, Faculty of Civil Engineering, October 2001 (in English).
3. JEŽKO, J.: Current Pedagogic Activities of the Department of Surveying. Geodesy, Photogrammetry and Engineering Surveying in the Information Society, Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).

4. KOPÁČIK, A.: Current Questions in University Education in Geodesy and Cartography. Geodesy, Photogrammetry and Engineering Surveying in the Information Society, Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
5. KOPÁČIK, A.: Geodetic Measurement and Modelling of the Hydrotechnical Profile of a Hydroelectric Power Station. Optical 3-D Measurement Techniques, TU Vienna, Austria, 2001 (in English).
6. KORBAŠOVÁ, M.: The Use of New Presentation Technologies in Geodetic Education. SCHOLA 2001-Multimedia in Education, Faculty of Materials Science and Technology, Trnava, November 2001 (in Slovak).
7. KYRINOVIČ, P.: New Trends in Determining Geometric Parameters of a Crane Rail. Geodesy, Photogrammetry and Engineering Surveying in the Information Society, Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
8. LUKÁČ, Š. – KOŽÁR, J. – GRÓF, V.: Measurement of Displaced Structures by Classic Geodetic Methods and GPS at the Gabčíkovo Waterworks. Problems of Automation in Engineering Surveying, Warsaw, Poland, March 2001 (in Polish).
9. LUKÁČ, Š. – ROJKOVIČOVÁ, M.: Determining the Geometric Parameters of an Atypical Crane Rail. Geodesy, Photogrammetry and Engineering Surveying in the Information Society, Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
10. SOKOL, Š.: 50 Years of Development of the Department of Surveying at the Faculty of Civil Engineering STU Bratislava. Geodesy, Photogrammetry and Engineering Surveying in the Information Society, Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
11. SOKOL, S. – BAJTALA, M.: Exploitation of a Mixed Linear Model to Estimate Parameters in a Geodetic Network. Geodesy, Photogrammetry and Engineering Surveying in the Information Society, Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
12. STANĚK, V.: Geodetic Monitoring of the New Danube Bridge in Bratislava. Geodesy, Photogrammetry and Engineering Surveying in the Information Society, Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
13. STANĚK, V. - KYRINOVIČ, P.: Expert Activity of the Department of Surveying. Geodesy, Photogrammetry and Engineering Surveying in the Information Society, Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
14. VYBÍRAL, P. – KOPÁČIK, A.: Knowledge Gained from the Development and Testing of an Optoelectronic Detector. Geodesy, Photogrammetry and Engineering Surveying in the Information Society. Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
15. ŽÁK, M. – LUKÁČ, Š.: Inspecting the Geometric Parameters of Selected Structures of the Bohunice Nuclear Power Plant. Geodesy, Photogrammetry and Engineering Surveying in the Information Society. Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
16. ŽÁK, M.: Presentation of Multimedial CD – 50th Anniversary of the Establishment of the Department of Surveying. Geodesy, Photogrammetry and Engineering Surveying in the Information Society. Bratislava, Faculty of Civil Engineering, October 2001 (in Slovak).
17. BARTOŠ, P.: Tasks of Photogrammetry in the Creation of ZB GIS. 9th Slovak Geodetic Days, Bratislava, December 2001 (in Slovak).
18. KOPÁČIK, A.: Current Questions in University Education in Geodesy and Cartography. 7th International Slovak-Polish-Czech Geodetic Days. Bratislava, May 2001 (in Slovak).
19. KOPÁČIK, A.: Geodetic and Cartographic Activities from the ISO 9000 Point of View. 9th Slovak Geodetic Days, Bratislava, December 2001 (in Slovak).
20. SOKOL, Š. – BAJTALA, M.: Geodetic Work in the Monitoring of Bridges. 7th Slovak-Polish-Czech Geodetic Days. Bratislava, May 2001 (in Slovak).

21. STANĚK, V.: Support of the Department of Surveying in the Construction, Reconstruction, Modernisation and Operation of Building Structures. CONECO, Bratislava, April 2001 (in Slovak).
22. BARTOŠ, P. – GREGOR, V.: Interdisciplinary Activities in Engineering Geodesy. Geology and the Environment. Bratislava, January 2001 (in Slovak).
23. BARTOŠ, P. – GREGOR, V.: The Place of Photogrammetry in the Reconstruction of Steel Bridges. The Role of the Department of Surveying in the Construction and Operation of Large Bridges in Slovakia. Bratislava, Faculty of Civil Engineering, April 2001 (in Slovak).
24. BARTOŠ, P.: Concept of 3-D Data Collection for ZB GIS Using Digital Photogrammetry. Tasks of Geodesy and Cartography in the Creation and Management of ZB-GIS, Trenčín August 2001 (in Slovak).
25. BARTOŠ, P. – FRAŠTIA, M. – GREGOR, V.: Photogrammetric Monitoring of the Development of Geodynamic Processes. Optimum Solution for Geotechnical Construction, Bratislava, September 2001 (in Slovak).
26. HOSTINOVÁ, G. – STANĚK, V. – JEŽKO, J. – VYBÍRAL, P.: Control Measurement of the Lafranconi Bridge in Bratislava. The Role of the Department of Surveying in the Construction and Operation of Large Bridges in Slovakia, Bratislava, Faculty of Civil Engineering STU, April 2001 (in Slovak).
27. JEŽKO, J. – STANĚK, V.: Geodetic Aspects of the Branisko Tunnel's Construction. Current Questions in Geodesy and Engineering Surveying, Herľany, September 2001 (in Slovak).
28. JEŽKO. J.: International Interconnection of the Hlohovec Comparison Base. Metrology in Geodesy, Bratislava, Faculty of Civil Engineering, June 2001 (in Slovak).
29. KOPÁČIK, A.: Load Testing of Bridges. The Role of the Department of Surveying in the Construction and Operation of Large Bridges in Slovakia, Bratislava, Faculty of Civil Engineering, April 2001 (in Slovak).
30. KOPÁČIK, A. – KYRINOVIČ, P. – KUBANKA, P.: Optimum Solution for Laying Out Network. Geodetic Networks 2001, Podbanské, October 2001 (in Slovak).
31. KUBANKA, P.: Mathematical Statistics in the Theory of Processing Measurements in Geodesy and Cartography. PRASTAN-STAKAN 2001 (International Conference on Statistics and Probability), Kočovce, September 2001 (in Slovak).
32. KYRINOVIČ, P. – KOPÁČIK, A. – ČERYOVÁ, I. – KUBANKA, P.: Control Measurements of the Bridges of Highway D1 in the Liptovský Mikuláš – Hybe Area. The Role of the Department of Surveying in the Construction and Operation of Large Bridges in Slovakia, Bratislava, Faculty of Civil Engineering, April 2001 (in Slovak).
33. LUKÁČ, Š. – ŽÁK, M.: Proposed Basic Displacement Measurements of the Highway Bridge Over the Váh and the Biskupice Canal at Beckov. The Role of the Department of Surveying in the Construction and Operation of Large Bridges in Slovakia, Bratislava, Faculty of Civil Engineering, April 2001 (in Slovak).
34. LUKÁČ, Š.: Metrologic Protection of Measuring Processes in a Geodetic Practice. Metrology in Geodesy, Bratislava, Faculty of Civil Engineering, June 2001 (in Slovak).
35. LUKÁČ, Š.: Land Ownership and Property and Control Documents for Land Consolidation in the SR. Land Consolidation in Slovakia, Košice, 2001 (in Slovak).
36. LUKÁČ, Š.: Amendments to Building Law and New Conditions for Authorising Construction. 9th Slovak Geodetic Days, Bratislava, December 2001 (in Slovak).
37. SOKOL, Š. – BAJTALA, M.: Structural Orientation of 3D Data for the Creation of City Information Systems. Tasks of Geodesy and Cartography in the Creation and Management of ZB-GIS, Trenčín, August 2001 (in Slovak).
38. SOKOL, Š. – BAJTALA, M.: Monitoring Building Structures Using Geodetic Methods.

Current Questions in Mining Surveying and Engineering Surveying, Herľany, September 2001 (in Slovak).

39. SOKOL, Š. – BAJTALA, M. – JEŽKO, J.: Modern Instrumentation and Its Application in the Measurement of Local Geodetic Networks. Actual Questions of Mining Surveying and Engineering Surveying, Herľany, September 2001 (in Slovak).
40. SOKOL, Š. – JEŽKO, J. – BAJTALA, M.: Geodetic Measurements in the Loading Test of the Highway Bridge Over Súčanka River. The Role of the Department of Surveying in the Construction and Operation of Large Bridges in Slovakia, Bratislava, Faculty of Civil Engineering, April 2001 (in Slovak).
41. SOKOL, Š. – BAJTALA, M.: Geodetic Work in the Monitoring of Bridges. 7th Slovak-Polish-Czech Geodetic Days, Bratislava, May 2001 (in Slovak).
42. STANĚK, V.: Geodetic Aspects of Bridge Construction Over the Danube in Bratislava. The Role of the Department of Surveying in the Construction and Operation of Large Bridges in Slovakia, Bratislava, Faculty of Civil Engineering, April 2001 (in Slovak).
43. STANĚK, V. – KOŽA, A.: Knowledge Gained from Geodetic Work During the Construction of Highway Tunnels in Slovakia, 9th Slovak Geodetic Days, Bratislava, December 2001 (in Slovak).
44. BAJTALA, M. – SOKOL, S.: Exploitation of a Mixed Linear Model to Estimate Parameters in a Geodetic Network. Professional Seminar on Doctoral Studies, Brno, Czech Republic, February 2001 (in Slovak).
45. VILLIM, A. – SOKOL, Š.: Reducing the Effect of Vertical Refraction in the Trigonometric Determination of Height Differences. Professional Seminar on Doctoral Studies, Brno, Czech Republic, February 2001 (in Slovak).

VIII.2 Commercial Activities for Firms and Institutions

1. Verification of the Višňové Laying Out Network and Tunnel Driving
2. Measuring of Horizontal Displacements of Structures of the Ružín Dam
3. Highway Bridges – Measuring Displacements and Deformations (Lafranconi, Belá, Dovalovec, Liptovský Peter, Rondel Liptovský Mikuláš, Vajnory)
4. SLOVALCO Žiar nad Hronom – Expert Analysis of the Stability of a Weighing Machine Foundation
5. Long-Term Monitoring of Displacements and State of Tension of the I-96 Girders on the Bridge over the Flooding Area of Váh D61 Nové Mesto nad Váhom – Chocholná
6. Measuring the Sinking and Lifting of a Horizontal Construction by a Bearing Change at Pillar No.5
7. Inspecting Measurements and Deformation Modelling of Selected Structures at Duslo Šala, Inc.
8. Measuring and Evaluating Vertical Displacements of Petrol Stations: Boľ, Ptrukša, Kamenná Moľva, Čičarovce
9. Measurement and Evaluation of the Vertical Displacements of the Zemplínska Šírava Dam
10. Realisation and Processing of the Thirtieth Stage Measurement of 3-D Deformations of the Bukovec 2 Dam
11. Geodetic and Photogrammetric Control Measurements of the Krupina Dam
12. Photogrammetric Monitoring of the Stability of Rhyolite Rock at Vyhne
13. Photogrammetric Monitoring of the Stability of the Cliff at Harmanec, Ducové, Banská Štiavnica, Demjata

VIII.3 Conferences and Workshops Organised

1. Special Seminar on The Role of the Department of Surveying in the Construction and Operation of Large Bridges in Slovakia (April 2001, Bratislava)
2. International Scientific Conference on Geodesy, Photogrammetry and Engineering Surveying in the Information Society (October 11-12, 2001, Bratislava)
3. Symposium on the Tasks of Geodesy and Cartography in the Creation and Management of ZB-GIS (August 30-31, 2001, Trenčín)

IX. PUBLICATIONS

IX.1 Journals

[1] BARTOŠ, P. – GREGOR, V.: Contribution of the Department of Surveying to the Development of Close-Range Photogrammetry in Slovakia. Slovak Journal of Civil Engineering. Volume IX, 2001, No. 1-2, pp. 27-30 (in English).
[2] BARTOŠ, P. – GREGOR, V.: Interdisciplinary Activities in Engineering Geodesy. In: Geology and the Environment. Bratislava 2001, pp. 123-127 (in Slovak).
[3] KOPÁČIK, A. – KYRINOVIČ, P.: Trends in Highway Tunnel Surveying in Slovakia. Slovak Journal of Civil Engineering. Volume IX, 2001, No. 1-2, pp. 21-26 (in English).
[4] KOPÁČIK, A. – STANĚK, V.: Construction of Highway Tunnels in Slovakia. Geodetic and Cartographic Horizons, 47 (89), 2001, No. 5, pp. 15-20 (in Slovak).
[5] KUBANKA, P. – ČERYOVÁ, I. – HOSTINOVÁ, G. – STANĚK, V.: Regression Model of the Deformation of the Geometric Parameter of the Gabčíkovo Lock Water Works. Slovak Journal of Civil Engineering. Volume IX, 2001, No. 1-2, pp. 15-20 (in English).
[6] SOKOL, Š. – VILLIM, A.: Reduction of the Effect of Vertical Refraction in the Trigonometric Determination of Elevations. Slovak Journal of Civil Engineering. Volume IX, 2001, No. 1-2, pp. 31-37 (in English).
[7] SOKOL, Š: - BAJTALA, M.: Use of a Mixed Linear Model for Estimating Parameters in a Geodetic Network. Slovak Journal of Civil Engineering. Volume IX, 2001, No. 1-2, pp. 10-14 (in English).
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