

THE 2nd INTERNATIONAL CONFERENCE ON ENGINEERING SURVEYING – INGEO 2002

The 2nd International Conference of Engineering Surveying INGEO 2002 was held in November 11–13, 2002 in the Congress Centrum of Slovak Savings Bank in Bratislava. The conference was organised by the Department of Surveying (DS) of the Faculty of Civil Engineering (FCE) of the Slovak University of Technology (SUT) in Bratislava under the auspices of the Dean of the FCE SUT Bratislava, Prof. **Dušan Petráš**, PhD.

The co-operation bodies of the conference were:

- FIG Commission 6 WG 6.2 – Engineering Surveys for Industry and Research
- Chamber of Surveyors and Cartographers
- Slovak Union of Surveyors.

Specialists from the 9 various countries in the world, who work at universities, research centres, in geodetic and building organizations as well as in industry, have participated in proceedings. Total number of participants was 76, out of which 36 participants were from foreign countries and 40 participants from Slovak Republic.

Proceedings of the 2nd International Conference of Engineering Surveying was aimed at a discussion about actual problems of engineering surveying, about conclusion of knowledge and results, which were acquired by the using of new modern technologies.

The individual sessions of proceedings were following:

Session 1: Model Building and Data Processing

Session 2: Deformation Measurement

Session 3: Photogrammetry Applications

Session 4: Sensors and Laser Equipments

Twenty-nine papers were presented during the conference. Papers were top up with the various contributions during discussion by many participants. The conference languages were English, Slovak and Czech. Discussion was ensured with the simultaneous translation. A proceeding from this conference was issued in English language in Edition of SUT Bratislava. There was also published a CD ROM where you can find the complete proceeding and also some more information about the Department of Surveying, which organised this conference. Content of the CD ROM and so the complete Proceedings of the 2nd International Conference of Engineering Surveying you can find on

<http://www.svf.stuba.sk/kat/GDE/INGEO2002/Start.html>.

Program of the conference was completed by an exhibition of measuring and computer techniques and software products developed for engineering surveying activities, monitoring of building structures and automated measuring systems. Main motive of the exhibition was emphasized by the participation of the laser terrestrial scanners (LTS) from Geotech Company Bratislava with the cooperation of Gefos Company Prague and Riegl Horn Company Austria. LTS was possible to see for the first time in Slovakia. LTS Cyrax (Leica) and LMS-Z360 (Riegl) belong to the best one in the world.

Organizing Committee prepared two daylong excursions:

- Excursion to the Faculty of Civil Engineering of the Slovak University of Technology in Bratislava,
- Excursion to the Gabčíkovo Hydro Electric Power Station (HEPS).

Participants of the excursion to the FCE SUT Bratislava were welcomed by prof. Dušan Petráš, PhD. – Dean of the Faculty, who described a historical development of FCE SUT Bratislava, its nowadays structure and actual problems. During the visiting of the departments, which ensure education of students in Geodesy and Cartography, the participants were familiar with a structure of the student programs, research and expertise activity of the each department.

The aim of the excursion to the Gabčíkovo HEPS was to present, especially to the foreign participants, a complex of the hydro-technique structures with the emphasis to the engineering-geodetic works realized in the past and also during present days. The participants' interest was aimed at the automated measured systems realizing monitoring of the selected structures of the Gabčíkovo HEPS. One part of the excursion was also the presentation of activities of the Department of Surveying of FCE SUT Bratislava on the Gabčíkovo HEPS. The participants of this excursion were allowed to look over some students' works, which present the results from every year practical exercises (Engineering Surveying Campus) of the 5th class students in Gabčíkovo HEPS.

Chairmen of the individual sessions defined conclusions and recommendations of the international conference INGEO 2002:

- in the area of the Model Building and Data Processing there will be often more used a Theory of the Robust Estimations,
- new processes of the refraction coefficient determination presented on the conference can evoke a development of the instruments with the automated correction of the refraction in a measurement process,
- CCD sensors and the technologies working on a CCD base became a main technologies also in engineering surveying, in the future it is expecting the strong influence of these technologies on the measurement systems development,
- the most productive technology for data acquisition in surveying will be LTS together with aerial scanners, their exploitation enable to create a spatial (3D) information systems (including 3D Cadastre),
- exploitation of the roboting measurement stations (RMS) in an area of cinematic applications (e.g. dynamic loading of the construction) needs to determine the new characteristics for RMS, this is possible to determine e.g. with help of the dynamic tests presented on the conference.

Assoc. Prof. Alojz Kopáček, PhD.

Chairman of the Scientific Committee