

Integrating the Generations
FIG Working week 2008
Stockholm, Sweden, 14th -19th June 2008



International Conferences of Postgraduate Students as Integration of Education, Science and Profession – 10 Years Experiences

Ing. Anna HAŠOVÁ
Prof. Ing. Otakar ŠVÁBENSKÝ, CSc.
Doc. Ing. Josef WEIGEL, CSc.

Brno University of Technology
Faculty of Civil Engineering
Institute of Geodesy

Introduction

Education process in Czech Republic has long tradition.

Surveying education has been included in study programmes at technical schools and universities.

Czech Republic joined the Bologna Process which lead to unification of the education system in European countries.

The structured study system of higher education are divided into bachelor, follow-up master or master programmes.

Top level of higher education cycles are doctoral (postgraduate – Ph.D.) study programmes.

Ph.D. students should have a chance to present their research results and to exchange their professional experiences...

Brno University of Technology



- established in 1849
- second largest and second oldest technical university in CR
- covers all branches of technical sciences and many of artistic disciplines
- has 22479 students and 4288 graduates in 2007
- Divided into:
 - Faculty of Civil Engineering**
 - Faculty of Mechanical Engineering
 - Faculty of Electrical Engineering and Communication
 - Faculty of Architecture
 - Faculty of Business and Management
 - Faculty of Chemistry
 - Faculty of Fine Arts
 - Faculty of Information Technology

Faculty of Civil Engineering Brno



Civil Engineering was first branch on the university.

- has 6186 students and 637 graduates in 2007

One of the oldest study programme is Geodesy and Cartography.

- has 344 students and 86 graduates in 2007



The JUNIORSTAV Conference

- International Conference of Postgraduate Students
- takes place in Czech Republic, Brno University of Technology, Faculty of Civil Engineering (FCE BUT)
- started at 1999
- concerned in civil engineering problems
- about 400 participants from Czech Republic and other countries every year (Slovakia, Poland, Germany, Austria)
- two of the sections relate to geodesy and cartography
- organization of the conference entrusted to doctoral students

Sections of the JUNIORSTAV conference

1. CIVIL ENGINEERING
(Architecture and Building Construction, Construction of Structures, Building Environment, Building Services and Energy, Building Realization)
2. CONSTRUCTIONS AND TRAFFIC STRUCTURES
(Concrete and Masonry Structures, Metal, Timber and Composite Structures, Roads, Railway Constructions and Structures, Building Industry Testing, Geotechnics, Structural Mechanics)
3. WATER MANAGEMENT AND WATER STRUCTURES
4. PHYSICAL AND BUILDING MATERIALS ENGINEERING
(Physical and Chemical Properties of Building Materials, New Building Materials)
5. ECONOMICS AND MANAGEMENT IN THE BUILDING INDUSTRY
6. GEODESY AND CARTOGRAPHY
(Theoretical Aspects of Geodesy and Cartography, Practical Aspects of Geodesy and Cartography)
7. FORENSIC ENGINEERING
8. SUSTAINABLE BUILDING AND URBAN DEVELOPMENT

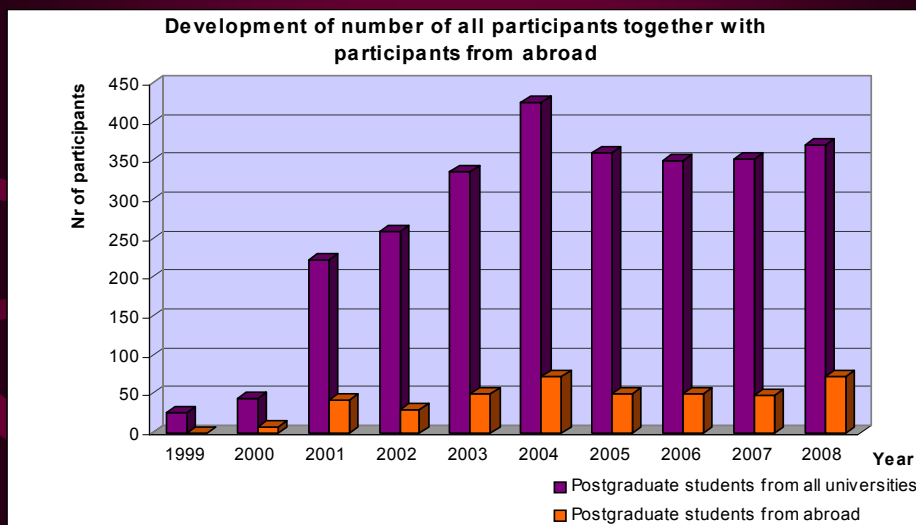
Location of participating schools



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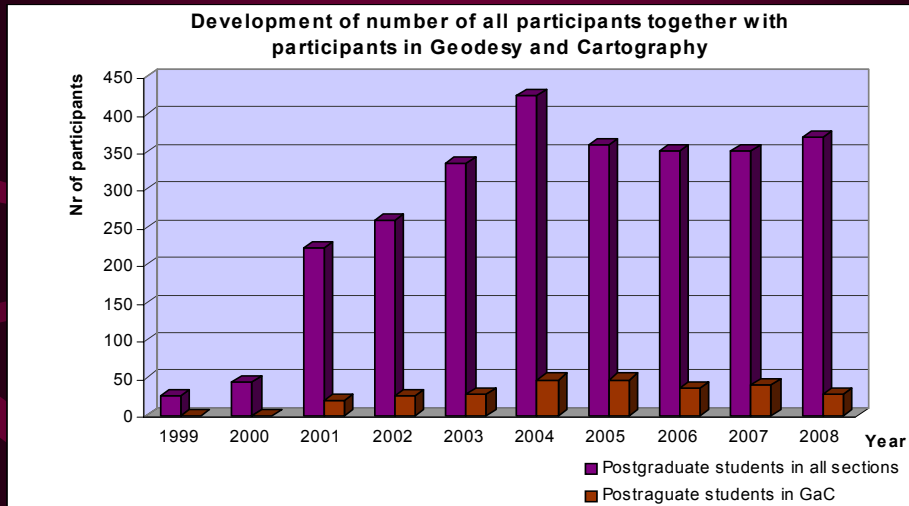
History of the JUNIORSTAV conference



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Geodesy on the JUNIORSTAV Conference



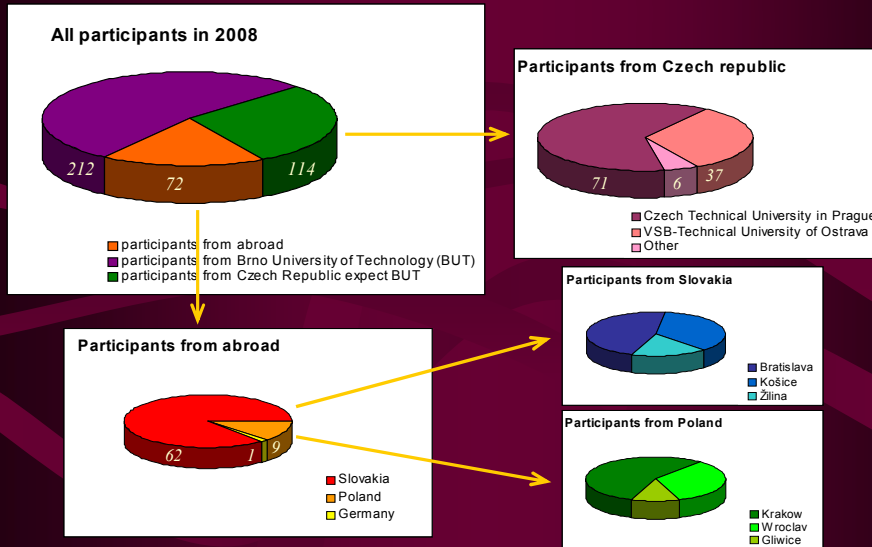
10th Year of JUNIORSTAV 2008

- 10th jubilee year of the JUNIORSTAV conference took place on the 23rd January 2008 at the FCE Brno
- head organisers doctoral students from **Institute of Geodesy**

Structure of participants of the JUNIORSTAV conference in year 2008

Class	10.
Year	2008
Number of participants	398
Number of contributions	370
Number of sections	20
Number of contributions from other states than CR	72 (18%)
Number of contributions from BUT	212 (53%)
Number of contributios in Geodesy and Cartography	28 (8%)
Number of contributios in Geodesy and Cartography from BUT	5

Analysis of participants in 2008



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Themes in geodetic sections

Winning works in the section

Theoretical aspects of Geodesy and Cartography in 2008:

- 1: Image Analysis as a tool for spatial layout recognition of environmental phenomena exemplified by soils (*Katarzyna Galant - Wroclaw*)
- 2: Effect of point thermal source on measured geodetic parameters (*Miloš Val'ko - Bratislava*)
- 3: Remainder of the Taylor polynomial as a modification of the Stokes's function (*Michal Šprlák - Bratislava*)

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Themes in geodetic sections

Winning works in the section

Practical aspects of Geodesy and Cartography in 2008:

- 1: Moving polynomial in filtering of airborne laserscanning data, correctness evaluation of the method (*Grzegorz Jóźków - Wrocław*)
- 2: 3D scanning system with virtual binary targets (*Rudolf Urban - Prague*)
- 3: A Web service for the automated processing of GPS data and digital pictures with map sections of web portals and Google Earth usage (*Jan Zít - Prague*)

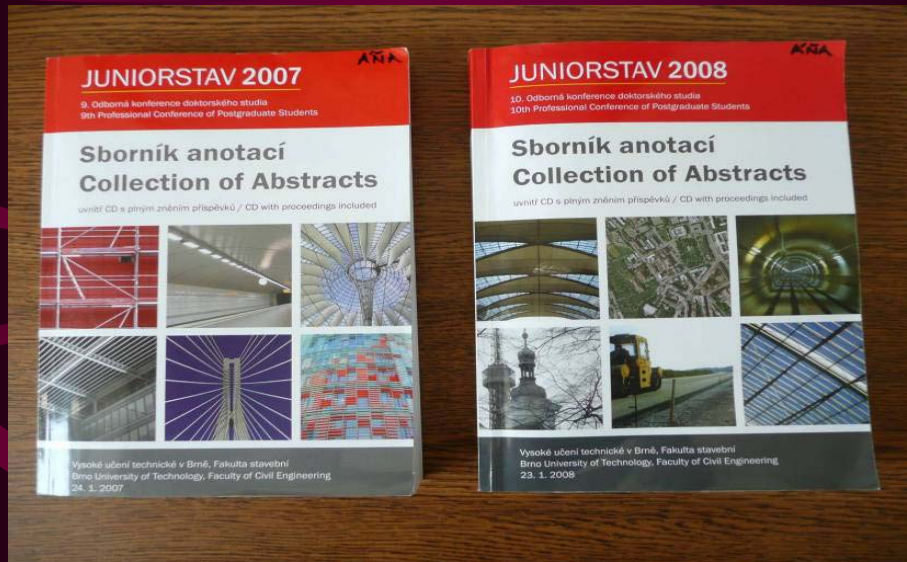
Organisers view

All activities related to the conference organization were carried out by postgraduate students and lasted for half a year.

Main goals:

- to start up the conference web pages
- invitations to other school and academic staff
- advertising in technical magazines
- looking for the money by way of sponsor's fees
- to compile and publish the conference proceedings
- arrange smooth running the day of the conference

The Conference proceedings



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Conflict of interests

On one hand – chance to welcome all participating students, watch lectures in all sections and obtain new contacts.

But on the other hand...

...all activities of organisers are closely watched by administration of the university. All our decisions must be consulted...

...there were different points of view in the planning of terms and conference fees...

...we learned how to cautiously communicate with academic staff, representatives of the city, sponsors...

For these reasons it was big opportunity to obtain experiences in activities which ordinary postgraduate student doesn't pursue.

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Day of the Conference



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Summary

The JUNIORSTAV conference gives room for wide presentation of research results for all postgraduate students.

The conference allows to confront researches with students from other workplaces and to obtain view on their problems from another side.

Important is possibility to get new personal contacts.

The JUNIORSTAV improves the quality of education of young scientists in fields of civil engineering and geodesy and cartography fields.

The 11th year of the conference – JUNIORSTAV 2009 will take place in January 2009 at the Faculty of Civil Engineering, Brno University of Technology, Czech Republic.

You are welcome! Thanks to all participant faculties...



Thank you for your attention.