

VSB - Technical University of Ostrava
Czech Association for Geoinformation
Slovak Association for Geoinformatics
International Society for Photogrammetry and Remote Sensing

Symposium GIS Ostrava 2011

23. 1. - 26. 1. 2011



GEOBUSINESS

GEOINFORMATIKA.SK



geoinformačný portál

Portál

New Hall of VSB - TUO, 17.listopadu 15, Ostrava-Poruba, Czech Republic, EU

1st circular

Call for papers

organize under auspices of

Prof. Ivo Vondrak, CSc., Rector of VSB – TU Ostrava

Prof. Vladimír Slivka, CSc., dr.h.c., Dean of FMG VSB – TU Ostrava

The symposium **“GIS Ostrava 2011”** follows three main topics - Advances in Remote Sensing, Advances in Spatial Modelling and Geoinformation Technology Challenges.

„Advances in Remote Sensing“ The aim of the workshop is to present new methods, new data, new sensors, and new applications in remote sensing. The new methods should be focused on synergy effect of different data types including GIS data to bring new tools for analysis of complex tasks in studying mutual relations among natural changes, global changes, anthropogenetical influence, etc. There are many data types covering different application fields of remote sensing and GIS applications, however, there are many applications where the data are not sufficient either due to their insufficient time resolution, spectral resolution etc. Most cases appear at data with low time resolution. New data types and new sensors can present advances in application of spectral imaging, polarimetry, interferometry and/or optical and microwave remote sensing for land use/land cover performed from, forestry, agriculture, geology, risk/hazard management, hydrology/wetlands, etc. There are many branches which are going to be new for users of remote sensing applying remote sensing methods for imagery focused not exactly the earth surface, but civil engineering object surfaces, different materials and their quality evaluation from their photographs, e.g. The remote sensing session will be interesting for many specialists and users especially due to the fact that there are many part of remote sensing, which are not used and the proposed themes belong to modern and quickly developing remote sensing directions.

„Advances in Spatial Modelling - Theory and Applications“ The workshop aims at delivering the recent knowledge about the advances in spatial analyses and modelling, emphasizing the benefits of Geographic Information Science. The workshop has also ambition to go beyond the GIS, and be open for other fields of modelling to initiate a cross-subject discussion. The workshop should provide a round table for experts to present and discuss their recent achievement; as well as for students and other practitioners to improve their understanding of spatial modelling issues. Three workshop`s sections are aimed at theoretical aspects of spatial modelling; applied environmental modelling; and socio-economy and technical systems modelling. The theory-focused section pays attention to the introduction of new methods or novel use of standard methods. The section is open to theoretical papers on spatial statistics, geostatistics, spatio-temporal modelling, relief analysis and other fields of spatial science. The Applied Environmental Modelling section focuses on case studies on climatology, hydrology and water management, forestry and agriculture, landscape ecology, etc. Social-economy and technical systems section primarily aims at urban geography; transportation, mining industry, oil and gas industry. Global studies attracting a broader audience, such as climate change; environment deterioration; forest fires, floods, windstorms and other hazards; human health; etc., are especially welcome. Local or subject-too-specific studies without clear message to broad audience will not be supported as oral presentations.

„Geoinformation Technology Challenges“ The aim of the workshop is to bring together experts of geoinformation technologies that are interested in design and development of geoinformation technologies and technical background necessary for making geoinformation technologies more efficient. During the workshop we would like to discuss challenges that bring new technologies in the area of geoinformation. The workshop is mainly focused on systems' interoperability that allows system integration inside an enterprise or across countries. The interoperability is based on open standards that are implemented in open source software or in closed source software. This workshop should identify tools (closed source software, open source software, open languages, open standards) that can be used for building geoinformation systems in open interoperable way and identify white areas that bring challenges for developers. For example, we have tested several tools for dynamic orchestration of geoweb services and the results from our research show that there is no tool available that can be directly used for this area. One of the workshop's targets is to show such areas that should be researched and filled with new software or new software components. Another problem, that is related with geoinformation technologies, is the efficiency. For example, even that we have better hardware, the systems, that are in use, are not fast enough to give results in a time requested by user. The workshop should discuss which technologies can be used to speed up current software (cache, better rendering algorithms, new data structures, new data models) and make software reliable (monitoring, logging, self learning systems). There are still areas, that are not well discovered, such as grid computing for spatial enabled applications, loosely coupled integration or knowledge based integration. We hope that this workshop can prepare good conditions for discussion of the mentioned areas and prepare some recommendations for developers.

RESEARCH SESSION

1. *Advances in Remote Sensing*

Main Topics

- Optical remote sensing - airborne and space-borne imaging spectroscopy applications (incl. hyperspectral data of very high spatial resolution)
- LiDAR remote sensing - ground and airborne laser scanning applications
- Radar remote sensing - microwave interferometry and polarimetry applications

2. *Advances in Spatial Modelling - Theory and Applications*

Main Topics

- Theoretical advances in spatial modelling (spatial statistics; geostatistics; data integration; spatial predictive modelling; etc.)
- Applied environmental modelling (hydrology; climatology; air pollution; agriculture and forestry; environmental science; etc.)
- Social-economy and technical systems modelling (demography; transportation; mining industry; oil and gas industry; etc.)

3. *Geoinformation Technology Challenges*

Main Topics

- Geodata and metadata interoperability
- Enterprise Integration
- Spatial Infrastructures
- GeoWeb mapping and services
- Parallelisation and Grid computing
- Geoservices workflow management
- Open Source business model

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Call for Workshop Proposal

Additional workshops are welcome. Workshops are intended to provide a forum for the discussion of a specific topic from the geoinformatics between an group of researchers. Each workshop should last from 2 hours to 1 day. The workshop organiser will be responsible for advertising the workshop, reviewing and selecting the papers.

Call for Papers

The Symposium incorporates two session threads; the **Research session** held in English language and the Application session held in Czech and Slovak language.

For an abstract submission, please, complete the Registration Form on the symposium website <http://gis.vsb.cz/gisostrava>.

All papers will be reviewed.

All accepted papers will be available in electronic proceedings on CD/DVD with full versions of papers from the Research session and the Application session.

The printed proceedings will be issued shortly after the symposium (containing only reviewed final papers of the research session). The proceedings will be sent for registration in **Web of Science - Conference Proceedings Citation Index**, Thomson Reuters.

Important Dates

June 30th 2010

deadline for workshop proposals submission

July 15th 2010

acceptance notification for workshop proposals

September 15th 2010

deadline for paper proposals submission
(abstract with min. 200 words)

September 24th 2010

acceptance notification for paper proposals

September 30th 2010

2nd circular

November 1st 2010

deadline for full papers submission for the research session
(research workshops)

December 3rd 2010

comments from reviewers

December 31st 2010

deadline for final versions of papers

January 15th 2011

deadline for early registration (discounted fees)

Organizing Committee

Katerina Peskova - chairman
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Lucie Tomasova
Jiri Horak

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Venue

The symposium will be held at
VŠB - Technical University of Ostrava premises,
the New Hall building.

For registration and more information, please
visit <http://gis.vsb.cz/gisostrava>

Conference Programme Committee

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Registration Fees

Early registration (not later than January 15 th 2011)	140 €
Registration (later than January 15 th 2011)	160 €
Author's registration (not later than December 15 th 2010)	100 €
Full-time students without conference service	Free
Full-time students with service	50 €
Printed conference proceedings (a book including shipping)	25 €

The Symposium registration fee covers participation in all conference sessions, electronic conference proceedings (printed version optional), coffee breaks with refreshment, light lunch and a banquet.

Preliminary Programme

January 24th 2011	afternoon - opening ceremony, 2 parallel sessions, banquet
January 25th 2011	morning - 2 parallel sessions afternoon - 2 parallel sessions
January 26th 2011	morning - 2 parallel sessions, closing ceremony

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