

Mid-Term Symposium Report of ISPRS Technical Commission IV on “Geospatial Databases and Location Based Services”

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The Mid-term Symposium of ISPRS Technical Commission IV on “geospatial database and location based services” was held during 14th to 16th, 2014 in Suzhou City, Jiangsu Province, China. It was organized by the ISPRS Technical Commission IV, hosted by the National Geomatics Center of China. It got supports from the Chinese National Administration of Surveying, Mapping and Geoinformation; Chinese Society for Geodesy, Photogrammetry and Cartography; GNSS & LBS Association of China; China Association for Geographic Information Service; National Nature Science Foundation of China; Jiangsu Provincial Bureau of Surveying, Mapping and Geoinformation; and Suzhou Municipal Bureau of Land and Resources. It was sponsored by Tianditu Co. Ltd.; Beijing Geoway Software Co. Ltd.; Geo-Compass Information Technology Co. Ltd. and Lenovo Group.

There were total 320 registered participants from 17 countries and regions took part in the symposium, among them 10 student volunteers and 49 free visitors from local universities and surveying & mapping agencies. Total 42 ISPRS officers attended the Symposium, including 4 Council Members, 4 Honorary Members, 4 Technical Commission Presidents and 1 TC secretary, 28 Working Group chair/co-chair/secretaries, and the Editor of ISPRS Book Series.

Eleven themes were designed, including 10 on the Working Group topics and one ICA-ISPRS TC IV joint theme. Total 129 abstracts/papers were received. After evaluation by the Scientific Committee members, 83 full papers were published, including 68 papers in ISPRS Archives and 15 papers in the peer-reviewed ISPRS Annals.

Nineteen Oral sessions with 86 presentations and 2 poster sessions with 43 presentations were organized. The oral sessions include 1 keynote session, 2 plenary session and 16 oral technical sessions.

The Symposium started with the opening ceremony in the morning of May 14th. Christian Heipke, Secretary General of ISPRS, brought greetings from ISPRS council. Then, Pende Li, Deputy Director General of National Administration of Surveying, Mapping and Geoinformation (NASG), gave his welcome to all participants and made a brief introduction to Chinese geomatics industry development. The director of Jiangsu Bureau of Surveying and Mapping and the deputy mayor of Suzhou city presented brief welcome speeches on behalf of the local governments. Marguerite Madden, Second Vice President of ISPRS, presented Travel Grants to 2 students from Russia and Germany on behalf of the ISPRS Foundation, Inc. (TIF). Jun Chen, President of ISPRS, declared the opening of this symposium and the exhibition. The opening ceremony was chaired by Jie Jiang, the president of ISPRS TC IV.



Opening ceremony of the symposium

Three keynote speeches were delivered in the keynote session following the opening ceremony. The first one was entitled 'Street View Maps based LBS' given by Prof. Deren LI from Wuhan University. He is the ISPRS Honorary Member, Academician of Chinese Academy of Sciences and Chinese Academy of Engineering. After briefly introduction the

system architecture of LBS, demands of various users, he discussed the street view maps and mobile mapping technology, the application and development of the industry, and the service mode and applications. The second keynote speaker was Prof. Georg Gartner, President of International Cartographic Association. His topic was 'Service-oriented cartography and Location-based Services'. He briefly reviewed the status and vision of LBS. Then he discussed 3 phases of LBS development, they are technology-driven, data-driven, and user-driven LBS. The third keynote speaker was Bryant Austin, the experimental multi-media artist from Studio: cosmos, USA. With the topic on 'The Art of Creating 1:1 Scale Full Body Photo Mosaics of Whales', he shared the highlights of his twenty year evolution to create 1:1 scale photo mosaics of whales, taking inspiration from NASA's approach to create ultra-high resolution photo mosaics of our planets and moons. He also provided insight into the methods and techniques required to safely create such photographs.



Keynote speeches

The 2 plenary sessions were held in the afternoon on May 14th. The first one was chaired by John C. Trinder, ISPRS Honorary Member. ISPRS Congress Director Lena HALOUNOVÁ presented 'Why you should participate in the XXIII ISPRS Congress in Prague?' She introduced the preparations of the XXIII ISPRS Congress in Prague and called the participation. Gottfried Konecny, ISPRS Honorary Member and co-chair of ISPRS WG IV/2 presented the status of global mapping and updating based on UN supported questionnaire. ISPRS President Jun CHEN reported the approach and results of 30-m global land cover mapping conducted in China. ISPRS 2nd vice President Marguerite Madden presented the geovisualization and analysis of animal behavior, habitats and conservation. The 2nd plenary session was chaired by Jun CHEN. Jan-Peter Muller, chair of ISPRS WG IV/3 delivered a presentation on the status of CEOS-WGCV Terrain Mapping from Satellites. E. Pattabhi Rama Rao, chair of WG IV/4 presented the applications of geospatial technology in ocean information and advisory services. Bert Veenendaal, chair of WG IV/5, presented the development of a flexible higher education curriculum framework for geographic information science. Sisi Zlatanova, chair of WG IV/7, talked about the challenges and opportunities in 3D indoor modelling and navigation. Xin Ren from National Astronomical Observatories of the Chinese Academy of Sciences introduced the DEM reconstruction and preliminary scientific exploration planning of the Chang'E 3.



Plenary Sessions

Sixteen oral technical sessions with 73 excellent oral presentations, and 2 poster sessions with 43 presentations were held during May 15h to 16th, focusing on “Methods for the Update and Verification of Geospatial Databases”, “Global Status of Mapping and Geospatial Database Updating”, “Global DEM Interoperability”, “Geospatial Data Infrastructure”, “Web and Cloud Based Geospatial Services and Applications”, “Sensor Web and Internet of Things”, “3D Indoor Modeling and Navigation”, “Planetary Mapping and Spatial Databases”, “Computing Optimization for Spatial Databases and Location based Services”, “Global Land Cover Mapping and Services” and “LBS and Ubiquitous Cartography”.





Oral Technical Sessions



Poster Sessions

ISPRS TC IV business meeting was held in the afternoon of May 15th, chaired by TC IV President Jie Jiang. All ISPPRS officers in Suzhou attended the meeting. Jie Jiang reported the organization of the symposium. Each working group briefly reported the activities of the WG and further work plan. Issues related to ISPRS publication, next Congress, etc. were also discussed. ISPRS Council members held a meeting during the symposium.



ISPRS TC IV business meeting



ISPRS Council meeting

Technical exhibitions were organized during the symposium. Eight exhibitors attend the exhibition, including GIS software, graphic workstation, image processing platform, unmanned aircraft system, web maps etc. Chinese computer-maker Lenovo Group, as the most typical one of them, brought four-screen solution for data processing which generated lots of attention from users intrigued by features like price and efficient performance. The on-line geographic information service platform MapWorld (Tianditu), developed by National Administration of Surveying, Mapping and Geoinformation of China (NASG), also drew lots of attention.



Technical exhibition

Social events were organized during the symposium. The welcome reception with live traditional Chinese music play in the evening of May 14th offered delightful opportunity for relaxing and catching up with friends. The beautiful city of Suzhou with the history of more than 2500 years, and the comfortable atmosphere, spiced up the symposium.





Welcome reception & city tour

During the symposium, 10 volunteers from Nanjing Normal University provided great help for registration, rehearsing, meeting room management, and participant assistant. Christian Heipke presented certifications to volunteers for their hard work.



Volunteers

At the Closing Ceremony, Marguerite Madden made a brief summary of this symposium. Jie Jiang and expressed her gratitude to all participants for their kind supports.

The symposium was a great success. We anticipated a well-attended symposium but our grandest expectations were exceeded. The quality of both the papers and the presentations was quite high. The symposium provided good opportunities for scientists, researchers and practitioners to discuss cutting-edge technologies, exchange research ideas, and promote international collaboration.



Closing Ceremony