

EFFORTS TO REALISE 3D GIS SOFTWARE AND SOLUTIONS

Workshop 3D Geo-information 2006

The first international workshop on 3D Geo-information clearly demonstrated how 3D geo-information is becoming prerequisite for many advanced GIS applications. Efforts by GIS scientists and researchers are still needed to realise 3D GIS software and solutions. About half the problems in 3D spatial-data capture and management have been solved; 10% in data analysis, about 90% in data visualisation and around 40% in 3D interoperability.

The workshop was held from 7th to 8th August in Kuala Lumpur, Malaysia at the Legend Hotel, hosted by the Department of Geoinformatics, Faculty of Geoinformation Science and Engineering, in collaboration with the International Society of Photo-grammetry and Remote Sensing (ISPRS), Delft University of Technology, The Netherlands, Stuttgart University of Applied Sciences, Germany; Land Surveyors Board of Peninsular Malaysia, and Department of Survey and Mapping Malaysia (JUPEM). The event, which is also supported by Autodesk as a platinum sponsor™, attracted 250 participants, seventy from 25 overseas countries, and seventeen major local and international exhibitors in GIS, remote sensing, photogrammetry, GPS and surveying, including JUPEM and the Malaysian Centre for Remote Sensing.

Keynote Papers

Four keynote papers highlighted new developments. Prof Dr Sisi Zlatanova of TU Delft, The Netherlands, treated the creation of spatial databasing for 3D objects, describing several experiments. The JUPEM director-general, represented by his deputy, revealed new JUPEM initiatives and vision on 3D geo-information products and services. Professor Dr Volker Coors (Stuttgart, Germany) described new 3D web services and also considered the emerging trend: smart urban environment. Dr Geoff Zeiss of Autodesk Canada treated 3D spatial data standards and initiatives from Open Geospatial Consortium (OGC) group.

Presentations

A total of 58 technical papers and six posters were presented during twelve parallel sessions the themes of which were all related to 3D aspects of spatial information. These included acquisition (Lidar and digital photogrammetry), data modelling and representation, GIS frameworks, object reconstruction, mobile mapping, city modelling, mapping, cadastre, and utility, visualisation, terrain modelling and orthophoto generation. All accepted papers were reviewed by International Scientific Committee members and published by Springer-Verlag (Heidelberg, Germany) as Lecture Notes in the Geoinformation and Cartography series. The book, entitled Innovations in 3D Geo Information Systems, is edited by Alias Abdul Rahman, Sisi Zlatanova and Volker Coors.

After the workshop a post-conference meeting was held from 10th and 11th August at the Faculty of Geoinformation Science and Engineering, Universiti Teknologi Malaysia, Skudai, Johor, where researchers discussed 3D GIS research topics including 3D topology for 3D GIS, 3D Utility Mapping, 3D Cadastre and 3D Geoinformation-based Smart Cybercity Environment.