

IGU Commission on Geographic Information Science C 08.12 Annual Report 2010

Greatly increased use of the Internet, location-based services and mobile geospatial technologies continue to present significant new opportunities and challenges in the acquisition, handling, analysis and dissemination of geographical information. The Commission has existed since 2000; previously it was an IGU Study Group on Geographic Information Systems. Geographical Information Science is concerned with the formalization, representation, and visualization of geographical data in computer systems; the advancement in the efficiency, power, functionality of geospatial data handling methods; the study of accuracy and uncertainty; and policy creation for data dissemination and data exchange standards. The emphasis of Geographic Information Science is on the core knowledge, theory, and concepts required for leading and supporting the development and effective use of Geographic Information Systems (GIS) Global Positioning Systems (GPS), and remote sensing.

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Late in 2010 we welcomed Professor Yasushi Asami as a member of the Steering Committee. Professor Yasushi Asami is the director of the Center for Spatial Information Science at the University of Tokyo. He is also the vice-president of the GIS Association of Japan.

Professor Asami's main research interests are in spatial information analysis and its application to city planning field. Currently he is running research projects to develop educational materials for spatial thinking and geographic information science, to develop methodology to convert spatial data protecting privacy and reserving statistical characteristics, and to develop GIS-free visualization tool from plain text files. His web site is at <http://ua.t.u-tokyo.ac.jp/okabelab/yasami/asami-j.html>. Professor Asami is now organizing an international conference "Spatial Thinking and Geographic Information Sciences" to be held on September 14-16 in 2011, and will work for our commission for the Regional IGU meeting in 2013 in Kyoto.

2. The number of commission members

The commission has not kept records of "members". The list of attendees at the IGU Congress and the International Symposia of Spatial Data Handling gives an indication of the size and diversity of participation. The Hong Kong SDH meeting attracted over 109 papers and attendance reached over 200.

3. Past Meetings

The 2010 International Symposium for Spatial Data Handling was held in Hong Kong in May and 109 papers presented and published in the conference proceedings. A series of

papers have been selected and two books will be published. One will be an SDH Monograph and the other a joint publication from the conference in the ISPRS book series. The meeting was jointly organised with the IGU Commission C04.29 Modelling Geographical Systems and ISPRS Commission II (Theory and Concepts of Spatio-Temporal Data Handling and Information).

We had organised a joint workshop between Commissions C04.13 (Commission on Geographical Information Science) and C04.29 (Modelling Geographical Systems) to be held in conjunction with the IGU meeting in Tel Aviv. Sadly, this workshop was undersubscribed and was cancelled. The few papers which survived were moved into the main conference as a series of sessions. This was a very unfortunate outcome.

The ISPRS Technical Commission IV (Geodatabases and Digital Mapping) invited us to hold workshops in conjunction with their Mid-Congress Symposium to be held November 15-19, 2010 in Orlando, Florida, USA. This symposium was held in conjunction with AutoCarto 2010, a Cartography and Geographic Information Society (CaGIS) Research Symposium and the Fall Specialty Conference of the American Society for Photogrammetry and Remote Sensing. Prof Francis Harvey organised our participation.

We are planning to organise sessions at the IGU regional meeting in Chile and again co-sponsor GEOCOMPUTATION in London in 2011. This latter meeting should attract several hundred participants. Prof Sabine Timpf is already starting to organise Spatial Data Handling in 2012 in conjunction with the IGU meeting in Koln.

The biennial GEOCOMPUTATION meeting held in late 2009 at UNSW in Sydney was jointly sponsored by this commission and commission C04.29 (Modelling Geographical Systems). This was an innovative move and the conference, which attracted several hundred attendees, was very successful. This meeting is held in the years that Spatial Data Handling misses and so brings us into an annual conference cycle.

4. Meetings or other events planned in 2010 and 2011.

We are planning to organise sessions at the IGU regional meeting in Chile and are co-organisers of the joint IEEE International Conference on Spatial Data Mining and Geographical Knowledge Services (ICSDM) and Beijing International Workshop on Geographical Information System (BJ-IWGIS) meeting in Fuzhou, P.R. China in late June, 2011. This latter meeting should attract several hundred participants.

Prof Sabine Timpf is already starting to organise Spatial Data Handling in 2012 in conjunction with the IGC in Koln. She expects the first call for papers to be sent out in February, 2011.

As outlined above, Prof Yasushi Asami will organise our commission's participation in the Regional IGU meeting in 2013 in Kyoto.

5. Networking

The Commission has been active in collaborating with other IGU Commissions and with ISPRS, ICA and SAGEO from 2008 through 2010. We have been particularly successful in our collaborations with Commission C04.29 (Modelling Geographical Systems). See meetings above.

6. Publications

Our Newsletter was distributed on 6th July, 2010. This, and previous newsletters, can be found at <http://www.unsw.adfa.edu.au/pems/igugisc>.

Two books are being published from the conference held in Hong Kong in May, 2010 jointly organised between this commission and the IGU Commission C04.29 Modelling Geographical Systems and ISPRS Commission II (Theory and Concepts of Spatio-Temporal Data Handling and Information). . One will be a Spatial Data Handling Monograph and the other a joint publication from the conference in the ISPRS book series.

The previous SDH meeting resulted in “Headway in spatial data handling” : Proceedings of the 13th international symposium on Spatial Data Handling, SDH 2008 / ed. by A. Ruas and C. Gold. Berlin : Springer, 2008. ISBN 978-3-540-68565-4 (Lecture Notes in Geoinformation and Cartography).

7. The commission's web site

<http://www.igugis.org/> or <http://www.unsw.adfa.edu.au/pems/igugisc>