

# **TECHNICAL COMMISSION VI:**

## **EDUCATION AND COMMUNICATION**

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President: T.Lukman Aziz (Indonesia)

Secretary: Riadika Mastra (Indonesia), Fahmi Amhar (Indonesia)

### **Term of Reference**

- Promotion of education and training in photogrammetry, remote sensing, GIS and related sciences
- Development of computer assisted teaching and training; support and coordination with regional activities through development of courses and course materials.
- Development and dissemination of standards with ISO and other standard organization

### **Accomplishments Of Commission VI During 1997**

The venue for the mid term Symposium of Commission VI has changed. Instead of Bali as was previously planned it has move to Bandung (West Java) Indonesia. The Symposium will be organized on the Campus of The Institute of Technology Bandung (ITB) from 24-26 August 1998. The symposium theme is "Sharing And Cooperation In Geo-Information Technology".

### **Symposium Time Table:**

1. Deadline of Abstract - March, 30, 1998
  2. Notification of Acceptance to Authors - April 30, 1998
  3. Deadline for Originals manuscripts - May 31, 1998
  4. Preliminary Programs - June 30, 1998
  5. Symposium August 24-26, 1998.
- An International Technical Exhibition is planned to be held at the same as the venue of the Symposium. The fee for exhibition is not yet decided.
  - Accommodation: a number of hotels close to the Campus of ITB has been arranged to accommodate the Symposium participants and the Symposium Secretariat has specially negotiated discount prices.
  - Technical Visits and Social Events are also arranged as an integral part of the Symposium.
  - Registration Fee: US \$ 200,- (two hundred US dollars)
  - In conjunction to the Symposium, a High Level Tutorial will also be organized on August 22 and 23, 1998 (see Report of WG VI/3).

## Working Group Activities During 1997

### WG VI/1: Education

Chair: Tania Maria Sausen (Brazil)

Co-Chair: Walter Schuhr (Germany)

#### Accomplishments

- Building of the Educators Network. The main objective is to identify people involved with education, remote sensing and photogrammetry throughout the world, in order to exchange information about projects and events held in this area as well as to announce opportunities about remote sensing, GIS and photogrammetry education. The Network official languages are Portuguese, Spanish and English. Internet is used to connect this network and the people who take part in it will be directly linked to the SELPER Research and Education Committee and ISPRS WG VI/1. Up to now more than 150 subscription from Latin America and Europe has been received.
- The First Workshop on Education in Remote Sensing Mercosul Wide. This event was supported by ISPRS. The main objective was to gather the community interested in teaching remote sensing to discuss the theme and present proposals for a regional action. This Workshop was held in Camboriú Balneario, Santa Catarina State, Brasil, in May 20-23, 1997.
- The generation of Camboriú document, during the 1st Workshop on Education in Remote Sensing Mercosul Wide. This document reflects Mercosul's participating countries common position towards remote sensing teaching for the year 2000. It is organized in the following topics: teaching material, infrastructure and institutional policies; courses and curriculums; teaching enabling programs. The expectation is that this document will be used as a base, by universities, teaching and research institutions, public and private offices, space agencies and public in general, to elaborate policies and education programs in the Mercosul region.
- Announcement of the International Course on Remote Sensing to the ISPRS Associate and Regional Members. This is a regular specialization course developed by INPE in the period from April to December, and it is designed to Latin American professionals.
- Preparation to update the UN Directory about Education, Training, Research and Fellowship Opportunities in Space Science and Technology and its Applications.
- A session of the WG for education of the German Society for Photogrammetry was held from 3.9. -5.9.1997 in Frankfurt (Germany). P. Kohlstock (Hamburg) has carried out a study on the revision of the Curriculum for Integrated Education of Engineers... for Surveying and Mapping. A. Schlemmer (Darmstadt) reported on Geodesy 2000 ++, a synoptically overview under DGK-contract. W. Hassenpflug (Kiel) presented a contribution on Semi-active courses under the frame of the CASTLE-project. At both events D. Lindig and J. Sievers (Frankfurt) chaired the WG for Terminology.
- In July 1997 W.Schur established a curricula for education in Photogrammetry for Archaeologists in Antalya (Turkey).

### WG VI/2: Computer Assisted Teaching

Chair: Kohei Cho (Japan)

Co-Chair: Joachim K.Hohle (Denmark)

## **State of Science and Technology of Working Group Topics**

(1) Theme issue of ISPRS Journal on CAT/CAL. The interest in Computer Assisted Teaching and Learning(CAT/CAL) is increasing year by year. The special theme issue of ISPRS Journal on CAT/CAL was published in late 1997. This issue was co-edited by the chairpersons of the WG. The contents well reflect the activities and accomplishment of the WG in the past and the prospects of the CAT/CAL in the future.

### **(2) Home Page**

The home page of the WG was established in 1997 for information, software, data dissemination and exchange of the WG.

<http://www.tric.u-tokai.ac.jp/research1/cat/cat.html>

### **(3) Software distribution**

The WG is collecting and developing non-commercial software for computer assisted teaching. The following software are currently available via internet.

(a) LDIP and ORTO(by Prof. Hohle , Aalborg University, Denmark)  
Computer assisted teaching software for photogrammetry which runs on Macintosh(LDIP), IBM-PC/MS-DOS(ORTO) and Internet (LDIPInter).  
<http://www.i4.auc.dk/jh>

(b) WinASEAN(by Dr. Duong of NCSR, Vietnam)  
A image processing software for remote sensing which runs on IBM-PC/MS-Windows environment.  
<ftp://ftp.tric.u-tokai.ac.jp/pub/outgoing/catbin>

(c) GIWIN(by Dr. Fuhu Ren of ESTO)  
A GIS software package which runs on IBM-PC/MS-Windows environment.  
<ftp://ftp.tric.u-tokai.ac.jp/pub/outgoing/catbin>

## **Accomplishments of Working Group During 1997**

Many conferences and seminars on CAT/CAL were held in various places. Some of them are described as follows. The members of the WG contributed to them by means of papers, demonstrations etc.

(1) 3rd International Conference on Computer Based Learning in Science (De Montfort University in Leicester, UK, from 4 to 8 July). About 80 participants from 15 countries attended the conference. 60 papers were presented covering subjects from educational strategies to software strategies, teaching packages, multimedia, distance learning, evaluation, simulation, design tools.(Proceedings : ISBN 80-7040-217-2)

(2) 4th International Conference on "Computer Aided Engineering Education" (CAEE'97, Krakow, Poland, September 11-13, 1997)

Topics concern: Theoretical advances in CAL, methodology of CAL, techniques and computer tools supporting CAL, dedicated CAL Systems, educational CAL systems-simulators. 40 papers and 14 posters are announced in the preliminary program.

<http://galaxy.uci.agh.edu.pl/~caee/>

[http://www.ctieng.gmw.ac.uk/Events/sept97\\_CAEE.html](http://www.ctieng.gmw.ac.uk/Events/sept97_CAEE.html)

(3) The 6th Regional Remote Sensing Seminar on Tropical Ecosystem Management(Hochiminh City, Vietnam from November 3 to 7, 1997). The seminar was jointly organized by NASDA, ESCAP, and NCST. Total of 65 participants from 17 countries and organizations have attended the seminar. A number of experts from the WG VI/2 were invited to this seminar to perform the PC based hands-on-training.

(4) Cooperation with other organizations/working groups. Many other professional organizations also have working groups on CAT/CAL, for example International Federation of Surveyors' (FIG's) working group on CAL ,headed by Prof. Kirsi Artimo, HUT, Finland. The members of our WG are exchanging information and cooperating with these groups.

### **Working Group News**

(1) Issuing of Newsletters. The WG VI/2 has been issuing CAT News Letters since 1994 and No.5 will be issued in 1998. The newsletters are distributed to the members of the WG and the others who are interested in CAT.

(2) CAT software show The WG plans to hold a software show at the Com. VI Symposium to be held in Bandung, Indonesia in August, 1998.

(3) The 6th Regional Remote Sensing Seminar on Tropical Ecosystem Management. The above Seminar is planned to be held in Sri Lanka in October, 1998. The WG will support this seminar by giving lectures and training.

### **WG VI/3: International Cooperation and Technology Transfer**

Chair: Luigi Mussio (Italy)

Co-Chair: Mojca Kosmatin (Slovenia)

Secretary: Bruno Crippa (Italy)

### **State of Science and Technology of WG VI/3**

The Terms of Reference of WG VI/3 should be suggestions and not boundaries, because it is impossible to separate science and the related techniques. Therefore the activities are defined, but not restricted to the Terms of Reference; furthermore new arguments are riches and not uncertainty. A comparison between the Middle Ages and the Renaissance proves that during the first there were a lot of constraints, but sciences and arts increased strongly in the second epoch. A second consideration recognizes

that science and techniques should grow together, exchanging theoretical contributions and practical experiences positively.

The following list provides some informal ideas in order to better focus the Terms of Reference of the WG VI/3:

- Offer an open floor for people entering ISPRS;
- Establish close contacts with Regional Member Organizations and, through them, Ordinary Members and Associated Members;
- Collect real examples of knowledge sharing and technology transfer;
- Promote the growth of basic knowledge and its circulation;
- Encourage a peaceful use of mature and innovative technologies;
- Establish contacts of ISPRS Technical Commissions and/or WG's, as well as Sister Societies, Regional Member Organizations and other International Institutions, which agree with the above mentioned sentences.

The Working Group activities will combine suitably the longstanding experiences and the results coming from the application of new techniques and methodologies: the aim is to bring together experts from various disciplines. Therefore scientists, engineers and users in the fields of photogrammetry, remote sensing, astronomy, geodesy, geophysics, electronics and computer science coming from universities, research institutes, governmental organizations, industries and engineering firms are invited to participate and their contributions will be highly appreciated.

Three levels of participation are foreseen: full-week, one-day and correspondent only (in this case the local host will provide to display an assisted poster session): the aim is always to enlarge the participation and to have Working Group activities at a really international level. The future plan of WG VI/3 will combine proper activities in East Europe and Africa, with high level contributions to the Technical Commission VI Mid Term Symposium and the next ISPRS Congress.

Considering the level of participation, nobody cannot change he/she interest, but focus his/her attention in a field wider than the traditional one cooperation imposes to exit from the everyday routine and to enter the world meeting new people, with the aim to exchange experiences and to transfer useful technologies positively.

Finally, because a lot of people wrote asking for financial support for travelling and lodging, the Working Group must state that the possibility to provide funds for all, needs a very big budget, whilst the budget of the Working Group is quite poor.

However ISPRS WG VI/3 chooses voluntary to have not only participants but also correspondent members, so that people interested to stay in contact may use e-mail, fax or phone and send camera-ready high-light contributions: they will be highly appreciated, displayed in the poster sessions and included in the Proceedings.

### **Accomplishments of WG VI/3**

#### **ISPRS WG VI/3 Padua Meeting**

The WG VI/3 "International Cooperation and Technology Transfer" organized the first meeting of the Working Group as a one-week meeting from February 3 - 7, 1997. The meeting took place in Padua, University of Padua, Engineering Faculty - Aula

Magna, and was organized by Dipartimento del Territorio e Sistemi Agroforestali and Dipartimento di Costruzioni e Trasporti - Sezione Rilevamento. The local host-person was Prof. Antonio Vettore. The meeting had a large participation, including 56 Italians and 18 participants from abroad, involving 12 countries. The president of ISPRS Technical Commission VI Mr. Klaas Villanueva from Indonesia and the chairperson of WG VI/1 Dr. Tania Maria Sausen from Brazil were present in the meeting.

The meeting consisted of seven Technical sessions, a one-day Tutorial on Geomatics, a half-day Tutorial on Data Processing and a Poster Session. A total of 6 lectures in the framework of tutorials, 23 papers and 11 posters were presented. The main topics of the meeting were: education in geodesy, survey, photogrammetry and GIS, knowledge sharing and technology transfer, selected themes from geodesy, photogrammetry, remote sensing and GIS. The variety of subjects covered by the meeting clearly underlines the intention of the WG VI/3 to bring together experts from various disciplines, e.g. scientists, technicians and users in the fields of photogrammetry, remote sensing, astronomy, geodesy, geophysics, electronics, telecommunications and computer science, coming from universities, research institutes, governmental organizations, industries and engineering firms.

### **ISPRS WG VI/3 Bahia Blanca Meeting**

The WG VI/3 "International Cooperation and Technology Transfer" organized the second appointment of the working group as a one-week meeting from October 27 - 31, 1997. The meeting took place in Bahia Blanca, Argentina at the Universidad Nacional del Sur (U.N.S.), Aula Magna, and was co-organized by the Engineering Department from U.N.S. The Chairperson was Prof. Dr. Luigi Mussio from Politecnico di Milano. The meeting had a large participation: over 100 participants, including colleagues from Italy, Russia, Uruguay and mainly from Argentina. Directors from C.O.N.A.E. (National Commission of Spatial Affairs of Argentina) came specially to Bahia Blanca in order to assist the meeting and they organized a special event in order to settle the basis for the future cooperation between U.N.S. researchers and C.O.N.A.E.

The meeting consisted of seven Technical sessions and a half-day tutorial: "International co-generation", a Poster Session and also a Business Session. A total of two lectures in the framework of tutorials, 29 papers and 19 posters were presented. The main topics of the meeting were: cartography and G.P.S., cartography and remote sensing, G.I.S. and expert systems, cooperation and education, resources and environmental monitoring, land degradation monitoring and water resources and coastal zone monitoring. The meeting was led under the auspices of "Instituto Geografico Militar Argentino (I.G.M.)" "Municipalidad de Bahia Blanca", "Consejo Profesional de Agrimensura de la Provincia de Buenos Aires" and "Albano: Cartografia digital".

### **WG VI/3 News**

On behalf of ISPRS Technical Commission VI President and in cooperation with other ISPRS WG Chair of Commission VI, namely Ms. Tania Maria Sausen, ISPRS WG VI/3 is organizing a High Level Tutorial in the two days before ISPRS Technical Commission VI Mid Term Symposium, which will be held in Indonesia, in August 1998.

According to its terms of reference, the Working Group kept close contacts with Regional Organizations. Therefore AIT (Asian Institute of Technology) was fully engaged, as Cooperating Organization, and Prof. Shunji Murai was kindly invited not only to give a lecture, but also to become the Chairperson of the tutorial itself. A volume of International Archives of Photogrammetry and Remote Sensing series will collect all the papers presented at each meeting.

### **General Comments**

It is a big pleasure to note as WG VI/3 cooperates with some Cooperating WG's, that it is not a small, isolated Working Group, but it plays an important role among the Technical Commissions and their Working Groups, increasing their cooperation and emphasizing the topics of international cooperation and technology transfer. Furthermore, special attention to real examples should be given by every member, to overcome a lack often experienced in the universities; indeed WG VI/3 according to its Terms of Reference cannot neglect or dismiss contributions from industry, engineering firms, etc.

### **WG VI/4: Internet Resources and Spatial Data Sharing**

Chair: Tuan-chih Chen (Taiwan)

Co-Chair: John Felkner (USA)

#### **Accomplishment of WG-VI/4**

- Investigation of the Internet environment for each ISPRS Ordinary Member.
- Promotion of homepages created by each ISPRS Ordinary Member, each Working Group, and each Commission and linked by the ISPRS main homepage.
- Presentation of the INTERNET AND WEBPAGE GUIDELINES FOR ISPRS to the Council.
- Proposal of the Best Webpage Of The Year Award to ISPRS Webpages.