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## ISPRS TECHNICAL COMMISSION VI EDUCATION AND COMMUNICATION

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**Outgoing President**

Klaas Villanueva (Indonesia) 1996-97  
Lukman Aziz (Indonesia) 1997-2000

**Incoming President**

Tania Maria  
Sausen, (Brazil)

**Outgoing Secretary**

Fahmi Amhar (Indonesia)

**Incoming Secretary**

João Ávila, (Brazil)

**Report of Outgoing President**

WG VI/1 on Education has developed an Educators Network to identify people involved with education, remote sensing and photogrammetry through out the world. This has been successfully established and active. The working group has also updated the UN Directory on Education, Training, Research and Fellowship Opportunities in Space Science and Technology and its Applications.

WG VI/2 on Computer Assisted Teaching has established a webpage for information, software, data dissemination and exchange of information. It has also collected and developed non-commercial software for CAT which is currently available via internet (LDIP, ORTO, WinASEAN, GIWIN, CD-ROM Remote Sensing Navigator).

WG VI/3 on International Co-operation and Technology Transfer has kept close contact with regional member organisations in Asia, Africa, and East Europe to help them in preparing the workshops, tutorial sessions as well as to encourage them in ISPRS activities.

WG VI/4 Internet Resources and Spatial Data Sharing has carried out an investigation of the internet environment for each ISPRS ordinary member and has promoted homepages created by each ordinary member, commission and working group and linked by the ISPRS main homepage. It has presented Internet and webpage guidelines for ISPRS.

**Outlook by Incoming President**

In order to fulfil the terms of reference, Commission VI will, during the coming 4 years, encourage the participation of developing countries in Commission VI activities. This will promote education and training in Photogrammetry, Remote Sensing, and GIS in their own countries. We will also stimulate the UN Centre for Space Science and Technology Education and other Training Centres to participate in the ISPRS Educational activities, through grants, fellowships, and scholarships. It will also be necessary to encourage the dissemination of ISPRS training activities and opportunities through Ordinary, Associate, and Regional members, within their area of influence and to promote the relationship with international organisations in order to promote ISPRS educational activities. In order to reach a large number of professionals in all continents, Commission will encourage the use of Internet and computer resources in ISPRS Educational activities and attempt to stimulate the

development of material for promoting the scientific and professional profiles of ISPRS areas in elementary and secondary education. As well as stimulating the Working Groups to organise Seminars, Workshops, and Training in their areas of expertise, it is also necessary to do this in cooperation with regional members of ISPRS and sister societies, who should endeavour to organise workshops for education in the developing world.

The Commission also has specific tasks:

- To maintain and update, at least annually, the Directory "Education, Training, Research and Fellowship Opportunities in the Remote Sensing and GIS and its Applications";
- To develop a directory about tutorials on Remote Sensing and GIS and to make it available on the Web;
- To encourage the development of similar Directories on Educational Photogrammetry activities;
- To increase the number of subscribers and stimulate the use of the Network Educators, for educational announcements.

The Commission has already started on its programme of work. During the period 1996-2000 TCP Tania Maria Sausen was Chair of WGVI/4, Education and she has created an EDUCATOR NETWORK, with the objective to identify people involved with education in photogrammetry, remote sensing and SIS throughout the world in order to exchange information about projects, seminars, courses, tutorials, symposia and congresses. This database has subscriptions of 100 institutions of 51 different countries. In order to enhance this an EDUCATORS NETWORK subscriber's list has been created. People who take part in this network will be directly linked to the ISPRS TC VI - Education and Communication WG and be able to receive and send information about education to all subscribers.

WGVI/1 has also done some preparatory work to set-up and start its work. A web page was established with various useful information on educational resources (especially free web sites giving information on such as courses, tutorials, glossaries and dictionaries), software, lists of educational institutions, bibliographic information (books, journals etc.), conference proceedings and other links. Tutorials at ISPRS events will also be placed at our WEB page and we have already contacted all convenors of the Amsterdam tutorials to send us their notes. This webpage is planned to be updated continuously with aim to be a major digital and freely accessible database on education and training. Addresses of people interested in education

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and training from all continents have been collected and a first circular letter has been sent out.

## Working Groups of Technical Commission VI for 2000-2004

### WG VI/1 Education and Training

Chair: *Emmanuel P. Baltasvias (Switzerland)*

Co-Chair: *Theodore Bouloucos (The Netherlands)*

#### WG VI/1 Terms of Reference

- Identification and promotion of educational and training opportunities, taking into account regional needs
- Identification, promotion and organisation (in co-operation with educational and research institutions) of educational material (courses, tutorials, glossaries etc.), especially in electronic form
- Collection and dissemination of information on higher level education;
- Organisation of educational and training activities, especially at ISPRS events and with the co-operation of ISPRS members
- Promotion of scientific publications in our fields and collection and dissemination of respective bibliographic information
- Co-operation with firms, esp. Sustaining Members, for training at technical level (e.g. operators) and support of educational and training activities in developing countries
- Co-operation with International Spatial Information Societies, UM and other relevant organisations on education and training
- Stimulating the development of materials for promoting ISPRS scientific and professional activities in elementary and secondary education

### WG VI/2 Computer Assisted Teaching

Chair: *Mark R. Shortis (Australia)*

Co-Chair: *Pierre Grussenmeyer (France)*

#### WG VI/2 Terms of Reference

- Collection, analysis, dissemination and promotion of materials, software and data (hard copy and/or soft copy) for computer assisted teaching
- Investigation of the role of computer assisted teaching in modern education and training such as material, methodologies, and tools
- Assessment and evaluation of highly interactive multimedia materials and the transformation of tertiary level courses in remote sensing, photogrammetry, SIS

### WG VI/3 International Co-operation and Technology Transfer

Chair: *Mojca Kosmatin Fras (Slovenia)*

Co-Chair: *Ulrike Karin Rivett (South Africa)*

### WG VI/3 Terms of Reference

- Development of matrices of joint activities with ISPRS Regional Members and other international organisations
- Development of activities to foster relationships between Regional Member organisations and the relevant WG
- Development of connections with international organisations to urge the wider promotion and use of photogrammetry, remote sensing, GIS and related disciplines
- Further development of international co-operation and public relations for ISPRS professions and stimulation of young professionals for co-operation in ISPRS activities
- Identification of channels for international co-operation in education and stimulation of international and regional organisations to support and fund activities promoted by ISPRS (in co-operation with the Council)
- Identification and use of support mechanism addressing needs for technology transfer, i.e. knowledge transfer and improvement of the infrastructure, especially in developing countries
- Establish links and liaise with ISU

### WG VI/4 Internet Resources and Distance Learning

Chair: *Sanjay Kumar (India)*

Co-Chair: *Carlos G. Patillo (Chile)*

#### WG VI/4 Terms of Reference

- Development of Education Forum through Internet about remote sensing, SIS and photogrammetry in co-operation with WG VI/1
- Identification and provide links to sources of geospatial data and accessibility through Internet Map Server Applications
- Development and maintenance Web Directory about Tutorials on Remote Sensing, SIS and Photogrammetry
- Development of Technical Guides for Distance Learning implementation through Internet
- Maintenance of ISPRS Internet guidelines
- Identification and dissemination of RS, SIS and photogrammetry applications provided in Internet
- Collaboration with WG IV/8, WGII/3 and WGII/6

### Plans for Commission VI

A number of workshops and seminars are planned:

- WG VI/4 is organising a session at the 4th Annual International Conference and Exhibition on Geographic Information Science in New Delhi, India, 7-9th February 2001.
- Seminar: "Education and technology transfer in Photogrammetry, Remote Sensing and Spatial Information Sciences in Latin America", Porto Allegre, Brazil, 9-10 October, 2001 (in co-operation with WG VI/3).

- Workshop "Photogrammetry, RS and SIS technologies for human settlements", Dar es Salaam, Tanzania, March, 2002 (in co-operation with WG VI/3 and a local host).
- Workshop within the frame of an Asian Conference on Remote Sensing possibly on RS, GIS and GPS technologies for environmental monitoring, agriculture and disaster management. Date and place have not been fixed yet.

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## ISPRS TECHNICAL COMMISSION VII RESOURCE AND ENVIRONMENTAL MONITORING

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**Outgoing President**

Gabor Remety-Fülöpp (Hungary)

**Incoming President**Rangnath  
Navalgund (India)**Outgoing Secretaries**Peter Winkler (Hungary)  
Frank Heygi (Canada)**Incoming Secretary**

Shailesh Nayak (India)

**Report of Outgoing President**

Applied remote sensing became more and more inevitable technology tool contributing to human's progress toward sustainability by support solving environment-related tasks on local, regional and global level. Remote sensing became integrated part of the advanced Information Technology and Telecommunication infrastructure, basement for the information society. Topics include building spectral databases and large datasets (local, cross border, continental or global), enhancing validation and calibration procedures in multi-source, multi-temporal environment, which are some of the strategic imperatives of the application-oriented research and development initiatives. These activities support the introduction of operational utilisation of the technology.

WG VII/1 on Fundamental Physics and Modelling has covered topics which included endmember selection/spectral unmixing, extraction of plant parameters via model inversion and semi-analytical approach, modelling the surface temperature, combining spectral and spatial information for classification purposes, solar energy simulation for rainforest environments, geometric rectification of hyperspectral airborne pushbroom data. Applications were mainly focused on geoscience (exploration, mine tailings monitoring and assessment, soil erodibility, soil distribution, river morphology), water (quality, phytoplankton and wave height extraction), agriculture (classification, stress detection, and retrieval of soil moisture, biomass, LAI, etc.), and GIS applications (demining). Optical, radar, and thermal data acquired with airborne as well as with spaceborne sensors were utilised to extract the information products. In some cases, a fused data set, e.g. optical combined with radar data, was used to retrieve the desired information.

Thematic applications of High Spatial Resolution Satellite Imagery were covered by WG VII/3. Some data integration for urban planning and manage-

ment, applications for improved rural management including precision farming, as well as support of local environmental impact studies using high resolution imageries were demonstrated at the Congress, but fewer as expected.

WG VII/5 has worked on Global Monitoring and organised session related to the Kyoto Protocol at the ISPRS Congress jointly with ISPRS WG IV-6 (Global databases supporting environmental monitoring). It provided an opportunity for a larger number of EO scientists to participate and discuss the importance of Earth Observation technology in the context of global treaties. The session "Spaceborne Low Frequency Microwave sensors - assessing user needs and technical limitations for global biomass estimations" (jointly with ISPRS WG VII-6 Radar Applications) addressed particular issues related to a new generation of microwave systems for assessment of global terrestrial carbon stocks.

Members of the WG on Radar applications have been active in the organisation of PACRIM2 which will see the NASA-JPL Airborne SAR (AIRSAR) flown in sixteen countries in the Pacific, Australian and Asian region in the April-May 2000 time period. WG VII/6 conducted a Tutorial on 'Recent Developments in Radar Science and Applications' given by Dr. Tony Freeman from the Radar Sciences Group at JPL. This collaborative science research mission provides the opportunity for environmental scientists in the region to acquire multi-polarimetric and interferometric SAR. In addition the Modis-Aster simulator MASTER will also be flown on this mission to acquire imagery in the visible NIR, SWIR and thermal portions of the electromagnetic spectrum.

A major activity of the WG VII/7 (Non-Renewable Resources and Geotechnical Applications active participation of the 28th International Symposium on Remote Sensing of Environment and the 3rd African Association of Remote Sensing of the Environment (AARSE) on "Information for Sustainable Development". Cape Town, March 27-31, 2000. WG VII/7 was involved in TC VII-8, TU11 and WS5 of the ISPRS Congress in Amsterdam.

ISPRS Council and the Joint Council Technical Commission Presidents Meetings were hosted by the Hungarian Society of Surveying, Mapping and Remote