

7th FIG Regional Conference

Spatial Data Serving People

Land Governance and the Environment –
Building the Capacity

Hanoi, Vietnam, 19–22 October 2009

Programme Book

Including FAO Regional Consultation Meeting on the FAO Voluntary Guidelines
for Responsible Governance of Tenure of Land and other Natural Resources

Platinum sponsor:

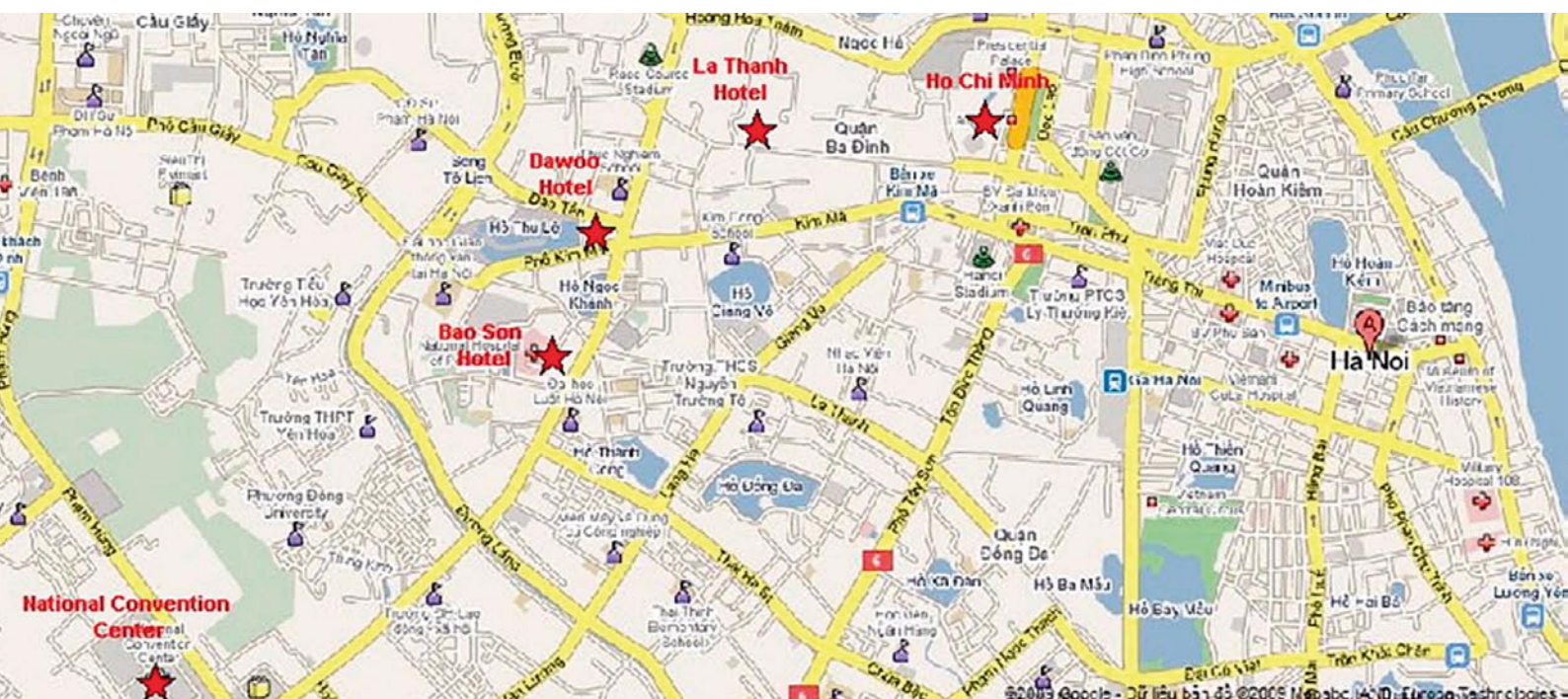


Gold sponsor:



Silver sponsors:





CONFERENCE VENUE



National Convention Center (NCC)

Pham Hung Street
Me Tri
Tu Liem
Hanoi
Vietnam

CONFERENCE HOTELS



Hanoi Daewoo Hotel

360 Kim Ma
Ba Dinh, District
Hanoi
Vietnam
Tel. +84 4 831 5000
Fax +84 4 831 5010
Email: info@daewoohotel.com.vn
www.hanoi-daewoohotel.com



Baoson International Hotel

50 Nguyen Chi Thanh
Hanoi
Vietnam
Tel. +84 4 3835 3536
Fax +84 4 3835 5678
Email: smtam@baosonhotels.com
or phuongthao@baosonhotels.com
www.baosonhotels.com



La Thanh Guest House (Nha Khách La Thanh)

218 Doi Can Street
Hanoi
Vietnam
Tel. +84 4 3 8235 123 or 3 8325 057
Fax +84 4 3 8325 310
Email: nklathanh@gmail.com

INVITATIONS

Welcome message from the President of VGCR



Dear Friends,

On behalf of the Viet Nam Association of Geodesy, Cartography and Remote Sensing (VGCR), I am pleased to welcome you to the 7th FIG Regional Conference, 19–22, October, 2009. This is the very first time Viet Nam was chosen to host

an international conference for FIG and we are wholeheartedly committed to making the event a success and ensuring each delegate's utmost satisfaction during the time of the conference.

Viet Nam has been carrying out its Renovation Process 'Doi Moi' and also industrialization – modernization cause on the basis of developing the market economy since 1986. Within the space of 10 years, between 1990 and 2000, Vietnamese surveyors worked to the utmost of its ability towards technological modernisation: a complete transform from analog to digital generation in surveying and mapping technology. Ever since, Viet Nam has developed its own National Spatial Data Infrastructure (NSDI) based on digital topographic data base at the scale 1/50,000 and cadastral data base covering

Welcome message from the President of FIG



Dear Friends,

The FIG Regional Conferences is held every second year and are rotating between regions throughout the world. They have shown to be a successful concept that produces fruitful results both for the region and internationally. This is the second time that the regional conference will be held in Asia, the first time was in Jakarta, Indonesia in 2004 and this time here in Hanoi, Vietnam.

The topics of this conference are selected to address the issues at the top of the regional and local agenda, and at the same time giving a platform for international discussions. The key topics are in the areas of land administration and environmental management. The conference thereby provides an excellent opportunity for FIG member associations and surveyors all over the world to meet and share experiences and achievements.

Our hosting association the Viet Nam Association of Geodesy, Cartography and Remote Sensing (VGCR) was founded in 1989 and has been an active member of FIG since 1994. As you will personally find out during the

the whole country, including the National Permanent-GPS network and SPOT5 receiving station.

The NSDI of Viet Nam has been effectively serving the control of natural resources exploitation, the environment protection and the forecast of natural disasters and consequences of climate changes. Moreover, the NSDI of Viet Nam plays a vital role in bridging the information gap between the Government and its citizen, pushing for administrative reform and protecting people's rights and benefits towards lands. Hence, the theme of this conference has been carefully selected to reflect the topic of *Spatial Data Serving People: Land Governance and the Environment – Building the Capacity*. We believe that this theme is especially relevant to the tasks of surveyors in this day and age when humankind is closer to each other than ever; working together towards a sustainable development and ensuring our Earth is everlasting green.

It is VGCR's pleasure to welcome surveyors from all over the world to the 7th FIG Regional Conference in Ha Noi. Please take the opportunity to visit both Hanoi and other places in Vietnam not forgetting the technical tour to Ha Long Bay, a famous natural heritage site and geological reserve in Viet Nam that is short-listed to the seven new natural wonders of the world.

Welcome to Ha Noi!

Prof. Dr. Sc. **Dang Hung Vo**
President of VGCR

conference Viet Nam today is a peaceful country, perfectly safe both for locals as well as for foreign visitors, attracting many investors from all over the world. Here, you will find a long standing traditional culture, invaluable historical and cultural heritages, breathtaking natural scenery and hospitable local residents.

Interestingly, the 7 Regional Conference coincides in time with Ha Noi's 1000 anniversary. As highlight of the conference VGCR will organise a one-day trip for all participants to Ha Long Bay, a famous world heritage site for its outstanding geological value listed by UNESCO – something not to be missed.

We are also happy to host the as part of the conference a two-day Regional Consultation Meeting on the "FAO Voluntary Guidelines for responsible governance of tenure of land and other natural resources" that is jointly organized with FAO Land Tenure and Management Unit (NRLA).

We are confident that the choice of Hanoi for the venue of this Regional Conference will prove to be fruitful and help the region to build up the profession

I warmly welcome you to the 7th FIG Regional Conference in Hanoi.

Prof. **Stig Enemark**
President of FIG

ORGANISERS

International Federation of Surveyors – FIG



The **International Federation of Surveyors** is an international, non-government organisation whose purpose is to support international collaboration for the progress of surveying in all fields and applications.

FIG is the premier international organization representing the interests of surveyors worldwide. It is a federation of the national member associations and covers the whole range of professional fields within the global surveying community. It provides an international forum for discussion and development aiming to promote professional practice and standards. FIG was founded in 1878 in Paris and was known as the *Fédération Internationale des Géomètres*. This has become anglicized to the International Federation of Surveyors. It is a UN-recognized non-government organization (NGO), representing more than 100 countries throughout the world, and its aim is to ensure that the disciplines of surveying and all who practise them meet the needs of the markets and communities that they serve.

FIG Council members (2009–2010):

- President: Prof. **Stig Enemark** (Denmark)
- Vice-President: Dr. **Dalal S. Alnaggar** (Egypt)
- Vice President: Mr. **Matthew B. Higgins** (Australia)
- Vice President: Mr. **Iain Greenway** (United Kingdom)
- Vice President: Mr. **Teo Chee Hai** (Malaysia)
- ACCO Representative: Dr. **Chryssy Potsiou** (Greece)

Web site: www.fig.net

The Vietnam Association of Geodesy, Cartography and Remote Sensing – VGCR



Viet Nam Association of Geodesy, Cartography and Remote Sensing (VGCR) is a non-government organization, which has purposes to support professional activities of surveying and mapping in all fields and applications. It is a professional association of surveyors working in geodesy, land survey, hydrographic survey, cartography, remote sensing from the whole of Viet Nam.

VGCR was established on 20th December 1989. The overall vision of the VGCR is to propagate professional knowledge and expertise to upgrade competence of its members and to awake people on the role and contribution of the profession for the socio-economic devel-



opment, environment protection and the guard of the social safety.

VGCR is a full member of The Vietnam Union of Scientific-Technical Associations (VUSTA). Since 1994, VGCR became the national association member of FIG.

VGCR has 3 different types of membership: the first is individuals, the second is organizations or agencies which provide commercial services related to the profession of surveyor, the third is local associations of the profession of surveyor.

The central leadership of VGCR is the Council including President, Vice-presidents and General-Secretary, elected in the National Congress.

VGCR has an Office, 3 Institutions which provide commercial services and Magazine "Surveying and Mapping". From the time of establishment, VGCR's activities are focused on national collaboration for the progress of profession through the scientific research, technology development, training, public awareness, etc. These activities include organizing the conferences, forums, workshops, seminars in national, regional and international range for professional discussion and development, promoting the professional consultancy and service, carrying out the inspection, supervision for important projects related to the fields of surveying, mapping and geomatics.

VGCR Council members (2007–2010):

- President: Prof. Dr.Sc. **Dang Hung Vo**
- Vice President: Dr. **Tran Bach Giang**
- Vice President: Assoc. Prof. Dr. **Vo Chi My**
- Vice President: Dr. **Thai Van Cong**
- Secretary General: Mr. **Trinh Anh Co**
- Vice president: Mr. **Nguyen Van Duc**
- Member: Mr. **Nguyen Tuan Hung**

Web site: www.vgcr.org.vn

Steering Committee

- *Chair:* Prof. Dr. Sc. **Dang Hung Vo**, President of VGCR
- *Vice Chair:* Prof. **Stig Enemark**, President of FIG
- **Trinh Anh Co**, General Secretary of VGCR
- **Markku Villikka**, Director, FIG

Organising Committee

- *Head of Local Organising Committee:*
Trinh Anh Co, General Secretary of VGCR
- *Head of Subcommittee, Technical Programme:*
Vo Chi My, Vice President of VGCR
- *Head of Subcommittee, Logistics:*
Thai Van Cong, Vice President of VGCR
- *Head of Subcommittee: Information:*
Tran Bach Giang, Vice President of VGCR
- *Members:*
Le Ke Son, Deputy Director General of Vietnam Environment Administration – Monre
Nguyen Chu Hoi, Deputy Director General of Vietnam Administration of Seas and Islands – Monre
Tran Thuc, Director of Scientific Institute of Meteorology, Hydrology and Environment – Monre
Nguyen Xuan Lam, Director of National Remote Sensing Centre – Monre
Le Minh, Member of Central Committee of VGCR
Do Duc Doi, Director of Information Centre – Land Administration Department – Monre
Nguyen Dinh Duong, Institute of Geography – Vietnamese Academy of Science and Technology
Nguyen Cam Van, Institute of Geography – Vietnamese Academy of Science and Technology, Member of Central Committee of VGCR
Nhu Thi Xuan, Deputy Director of Geography Faculty Hanoi National University, Member of Central Committee of VGCR
Pham Van Cu, Director of International Research Center on Global Climate Change, Hanoi National University, Member of Central Committee of VGCR
Le Van Trung, Director of Geomatic Center – Information Technology Park – National University HoChiMinh City, Member of Central Committee of VGCR
Pham Hoang Lan, Hanoi University of Mining and Geology, Member of Central Committee of VGCR
Dang Nam Chinh, Director of Geodesy and Cartography Faculty – Hanoi University of Mining and Geology, Member of Central Committee of VGCR
Le Minh Tam, Deputy Director General of Vietnam Department of Survey and Mapping – Monre
Le Phu Ha, Deputy General Director of Information and Communication Technology Department – Monre

Tran Dinh Luat, Deputy General Director of Aero – Photo Topography Survey Company – Monre
Vo Sy Hoa, Deputy General Director of Cadastre and Engineering Survey Company – Monre
Le Anh Dung, Deputy Director of Vietnam Institute of Geodesy and Cartography – Monre

- *FIG representatives:*

John Neel, General Manager
Markku Villikka, Director, Technical Programme



REGIONAL CONSULTATION MEETING

on the FAO Voluntary Guidelines on Responsible Governance of Tenure of Land and other Natural Resources



The Food and Agriculture Organization of the United Nations (FAO) will organise a Regional Consultation Meeting on “FAO Voluntary Guidelines on Responsible Governance of Tenure of Land and other Natural Resources” in parallel with the 7th FIG Regional Conference 20–21 October 2009. The meeting is financially supported by FAO and UN-HABITAT.

The Regional Consultation Meeting will bring together around eighty experts from South East Asia, South Asia and East Asia who are familiar with the tenure of land and other natural resources (forestry, fisheries and water). The meeting will be an occasion to review the specific features of governance of tenure in the region and to discuss the scope and the strategies of the proposed Voluntary Guidelines. The meetings are open to all participants of the FIG conference.

The Voluntary Guidelines will be developed to provide practical guidance on responsible governance of tenure as a means to respond to global challenges. In a situation of increasing pressure and growing competition on resources, responsible governance of tenure can enhance livelihoods and support social and economic development. The Voluntary Guidelines aim to provide a framework and a point of reference that stakeholders can use when developing their own policies and activities in the land sector.

Background to the initiative

Land and other natural resources provide a platform for livelihoods and a basis for social, cultural and religious practices. Rights of access to these resources are increasingly affected by climate change, natural disasters, violent conflicts, population growth, and growing demands of land for agriculture and for new energy sources such as bio-energy. While weak governance hinders economic growth and sustainable use of environment, responsible governance of tenure of land and other natural resources can help to reduce hunger and poverty and to support social and economic development. In order to enhance the governance of tenure, there is a growing and widespread interest for an international instrument that can be adopted and implemented by countries.

In response, FAO is developing *Voluntary Guidelines on Responsible Governance of Tenure of Land and other Natural Resources*. The Voluntary Guidelines are intended to provide practical guidance to states, civil society and the private sector on responsible governance of tenure as a means of alleviating hunger and poverty, enhancing the environment, supporting national and local economic development, and reforming public administration. By setting out principles and internationally accepted standards for responsible practices, the Voluntary Guidelines provide a framework and a point of reference that stakeholders can use when developing their own policies and activities in the land sector.

The Voluntary Guidelines will be consistent with the wide range of international instruments adopting a rights based approach and being a further elaboration of the *Voluntary guidelines to support the progressive re-*



alization of the right to adequate food in the context of national food security ("Voluntary Guidelines on the Right to Food"). The Voluntary Guidelines will also build on FAO's long term work in improving secure access to land and other natural resources, including convening the 2006 International Conference on Agrarian Reform and Rural Development (ICARRD).

The Voluntary Guidelines will be prepared jointly with governments, civil society, private sector and international organizations. They will draw on multi-stakeholder regional consultation meetings, civil society workshops and expert group meetings. Once drafted, the Voluntary Guidelines will be submitted for FAO member country approval. Upon adoption of the Voluntary Guidelines, FAO and its partners will support their implementation through national action plans and through the Organization's extensive partnership networks and related project activities.

The consultation meetings are FAO-led multi-party initiatives that aim at bringing together regionally representative, multidisciplinary groups. The meetings will assess regional priorities of the voluntary guidelines and review the specific features of governance of tenure in each region. They will provide feedback on the contents of the voluntary guidelines and on their eventual implementation.

The Regional Consultation Meeting in Hanoi, that gathers participants from South East Asia, South Asia and East Asia is an occasion for FAO and its partners to consult stakeholders on issues of responsible governance of tenure of land and other natural resources. Other similar meetings will be organized across the world.

The consultation meeting will focus on the following issues of governance of tenure:

- land tenure and administration
- natural resources including tenure of forests, fisheries and water
- land use planning and urban development
- land economics, markets and valuation
- safeguard of vulnerable groups and gender issues.

Additionally important regional initiatives and approaches in the field of governance, policy and institutional development are discussed.

The consultation meeting will result in a *Regional Assessment of Governance of Tenure of Land and Other Natural Resources*. This assessment will take into account the key principles and the strategic actions proposed to be addressed and included in the FAO Voluntary Guidelines. The objective is to reach a common understanding between stakeholders.

The consultation meeting will be structured around plenary sessions, workshops and wrap up sessions. The meeting will close with the preparation and the distribution of the Draft Regional Assessment.

FIG CORPORATE MEMBERS

PLATINUM LEVEL

 Bentley	Bentley Systems, www.bentley.com
	Environmental Systems Research Institute, Inc. (ESRI), www.esri.com
	Intergraph Mapping and Geospatial Solutions, www.intergraph.com
	Leica Geosystems AG, www.leica.com
	Topcon Corporation, www.topcon.co.jp/eng/
	Trimble Navigation Ltd, www.trimble.com

GOLD LEVEL

	SOKKIA TOPCON CO., LTD., www.sokkia.co.jp
---	---

SILVER LEVEL

	BLOM ASA, www.blomasa.com
	COWI A/S, www.cowi.dk
	Grontmij nv, www.grontmij.com
	Magellan Navigation http://pro.magellangps.com

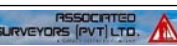
BRONZE LEVEL

	AED-SICAD Aktiengesellschaft, www.aed-sicad.com
	Eimar Arabia Real Estate Development Co. Ltd., www.eimararabia.com
	GIM International – Reed Business Information – Geo, www.gim-international.com
	IGN France International, www.ignfi.fr
	Mason Land Surveys Limited, www.mason.co.uk
	SEDIC – Sudan Engineering and Digital Information Center

BASIC LEVEL

	Derinsu Underwater Engineering & Consulting, www.derinsu.com
	GEO:connexion Ltd, www.geoconnexion.com
	GEOEXPERT, www.geoexpert.asso.fr
	GeoInformatics, www.geoinformatics.com
	Geotrilho Topografia Engenharia e Projecto lda www.geotrilho.pt
	Institut Cartogràfic de Catalunya, www.icc.es
	International Land Systems (ILS), Inc., www.landsystems.com
	LKN Earth Research & Consulting, www.lknconsultants.com
	P.V. Publications Ltd., www.pvpubs.com

REGIONAL LEVEL

	Associated Surveyors (Pvt.) Ltd
	Cameroon Engineering S.A.
	Al-Mutakamilah Real Estate (Cityplex) www.cre.com.jo
	Galileo Instruments, Inc., www.earthsurface.com
	GTZ (German Agency for Technical Cooperation), www.gtz.de
	Orbits Engineering Firm www.orbitseng.com/
	Reidin.com, www.reidin.com
	SEPRET (Société des Etudes de Projets et Réalisation des Travaux, S.A.R.L.), www.sepret.com
	OTHER SPONSORSHIP: Den danske Land-inspektørforening (DdL), http://ida.dk/sites/ddl/

SOCIAL EVENTS

Welcome Reception



Time: Monday 19 October 2009
18:00–20:00
Venue: National Conference Centre, Hanoi
Fee: Included in registration fee.
Dress code: Smart casual.
Transfers: After the reception transfers to conference hotels.

Meet the conference participants at relaxed atmosphere in the evening of the first conference day at the conference venue, the National Conference Centre in Hanoi. The welcome dinner includes a buffet dinner with drinks (beer and soft drinks).

Vietnamese Evening



Time: Tuesday, 20 October 2009 18:15–22:00
Venue: Baoson Paradise Theme Park
Fee: Included in registration fee.
Dress code: Casual (outdoors).
Transfers: Transfers from NCC and from conference hotels. After the dinner transfers to conference hotels.

The Vietnamese Evening that is at the same time the FIG Foundation Dinner will be held at the Baoson Paradise Theme Park. During the evening you will be able to visit traditional Vietnamese houses, see and buy local handicraft, enjoy local music and dance and enjoy a Vietnamese buffet dinner.

Farewell Dinner



Time: Wednesday, 21 October 2009 19:00–21:30
Venue: Daewoo Hanoi Hotel
Fee: Included in registration fee
Dress code: Smart casual (at the hotel pool area).

Transfers: From other conference hotels to Daewoo Hotel and after the dinner back to conference hotels.

Conference dinner will be held at the pool area of Daewoo Hotel. This seated dinner with set menu will be closing social event of the conference.

ESRI Pre-conference Seminar Land Administration and GIS



Time: Sunday, 18 October 2009 9:00–12:30
Venue: Press Club, 59 A Ly Thai To St., Hanoi, Vietnam
Tel. +84 4 3934 0888
Fax + 84 4 3934 0899
Fee: Free pre-registration preferred.

Technical Tour to Ha Long Bay



Time: Thursday 22 October 2009
Fee: Included in registration fee of international participants
One day technical tour to Ha Long Bay, which is a UNESCO World Heritage site is included in the registration fee for international participants. Pre-registration is however required. Accompanying persons and local participants are welcome to attend, but need to register separately. **Note:** You can extend your stay in Ha Long Bay with one night. This option includes an overnight on a deluxe junk. See details on this web site.

Pre-registration is however required. Accompanying persons and local participants are welcome to attend, but need to register separately. **Note:** You can extend your stay in Ha Long Bay with one night. This option includes an overnight on a deluxe junk. See details on this web site.

Programme of the day tour



Time: Thursday 22 October 2009
Fee: Included in registration fee of international participants.
Pick up at your hotel (conference hotels

only) 07:00, drive to Ha Long City. Short break on the way.

Arrive in Ha Long at 11:00. Board the boat to enjoy a four hour cruise on the bay. (Note: There will be several boats so the busses and boats are numbered with same number.) During the cruise visit the Thien Cung cave (The cave of the heavenly – famous for its stalagmites and stalactites) which has been open to public since 1998. Visitors then admire the newly – discovered Dau Go grotto (wooden stakes deep inside the cave prior to a battle with an invading Mongol army). Deluxe seafood lunch on boat. Boat ride back to Ha Long City arriving 16:00. Drive back to Hanoi and arrive your hotel in Hanoi at 20:00.

Extend your stay in Ha Long Bay by overnight on deluxe junk:

Explore Ha Long Bay, overnight on deluxe junk – HLJ-2



Time: Thursday 22 October – Friday 23 October 2009
Fee: EUR 95 and single supplement EUR 60/person
Note: You can extend your one day technical tour by

selecting extension to your stay in Ha Long Bay. Those who have selected this option will have their own buses.

Programme

Day 01: Ha Noi – Ha Long (–/L/D)

Pick up at your conference hotel 07:00, drive to Ha Long City, short stop on the way. Arrive in Ha Long 11:00. Board

the boat to enjoy an overnight trip in Ha Long Bay. Enjoy many beautiful islets and islands when you have deluxe seafood lunch. After lunch visit to Sung Sot (Surprise) cave – famous for its stalagmites and stalactites. Leaving the cave boat will arrive Tittop island for swimming on nice sand beach or walk on the top of island for panorama view of Ha Long Bay. Back to boat for deluxe seafood dinner. After dinner enjoy fishing at night. Overnight on boat.

Day 02: Ha Long – Ha Noi (B/L/–)

Sunrise breakfast on boat. Continue to visit Ha Long Bay. Deluxe seafood lunch on boat. Arrive to Halong City 12:00 and transfer back to Hanoi. Arrive to your conference hotel or to the airport 16:00.

Services included:

- accommodation based on twin sharing cabin
- transportation as program
- English speaking guide
- entrance fees as in program
- boat fee
- meals as mentioned in the program (B: breakfast, L: lunch, D: dinner)

Services excluded:

- beverage and personal expense.

Sightseeing Tours

A selection of local tours are offered for delegates as well as accompanying persons. Following tours can only be booked through the organisers. A selection of optional tours are also offered, and can be booked from the appointed tour operator: **Asia Explorer Travel JSC** at their desk in NCC.

Full-day Hanoi city tour with lunch – FCH



Time: Sunday 18 October 2009

Fee: EUR 20

Pick up from your conference hotel 8:00 and transfer by car to visit Ho Chi Minh Mausoleum and Museum, One pillar pagoda, and

Temple of Literature.

After lunch visit to Hanoi Hilton – Prison, Army Museum, Hanoi Flag Tower. Wandering around Hoan Kiem Lake then visit Ngoc Son Temple and enjoy one-hour cyclo trip around the trading area in Hanoi Old Quarter. Tour end about 16h30 pm.



Half-day Hanoi city tour – HCH

Time: Monday 19 October 2009 (HCH-1) and Wednesday 21 October 2009 (HCH-2)

Fee: EUR 10

Pick up at NCC 13:30.

Transfer to visit Ho

Chi Minh Mausoleum and Museum, One pillar pagoda, Temple of Literature, continue visit Hanoi Hilton – Prison. Wandering around Hoan Kiem Lake and Hanoi Old Quarter. The trip ends at NCC on Monday and at your hotel on Wednesday by 17:30.

Half-day Hanoi – Bat Trang Ceramic Village – HBT



Time: Tuesday 20 October 2009

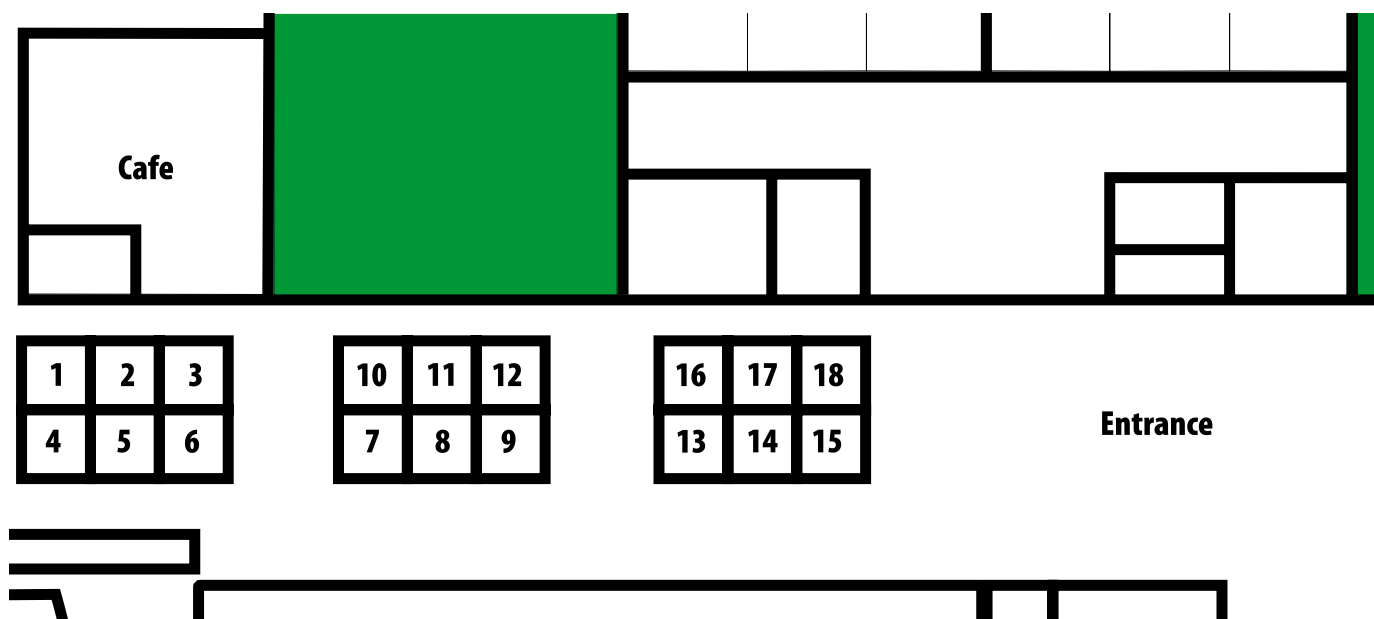
Fee: EUR 10

Start at 13:30 from NCC. Transfer by car from Hanoi to Bat Trang ceramic village, the center of

traditional "An Nam" ceramic. Stop at the village is an interesting mixture between watching the real production of ceramics and walking around for some light but fine and sophisticated porcelain. You can find in a factory the workmen mixing clay or dipping burnt vases into glaze to highlight their crackled lines, the painting masters, usually young girls with dexterous hands drawing on raw terracotta before they are heated at 9000C to 1,7000C ovens, taking inspiring pictures of coal-dust bakes pasted on the village's walls. Daily life of the village with a small exciting market and the wharf at the Red River where the products shipped are also very fascinating. Back to your conference hotel in Hanoi by 17:30.



EXHIBITION



Location: National Conference Center (NCC), 2nd floor

Open on Monday 11:00–17:30, Tuesday 9:00–17:30, Wednesday 9:00–15:30

1 & 4		Trimble Africa, Middle-east & Asia-Pacific PO Box 769, Spring Hill, QLD 4004, Australia Tel. + 61 7 3216 0044 Contact: Lin Lin Ho, Lin_Lin_Ho@trimble.com www.trimble.com
3		Environmental Systems Research Institute, Inc. (ESRI) 380 New York Street, Redlands, CA 92373, USA Tel. + 1 909 793 2853, fax + 1 909 301 3039 Contact: Brent A. Jones, bjones@esri.com info@esri.com www.esri.com
5		FIG 2010 FIG2010 Congress Managers arinex Pty Ltd ABN 28000 386 676, GPO Box 128 , Sydney NSW 2001 , Australia Tel. + 61 2 9265 0700, fax + 61 2 9267 5443 fig2010@arinex.com.au www.fig2010.com
6		TECOS Consultancy Service and Technology Development for Natural Resources and Environment No. 106 Chua Lang street, Dong Da district, Hanoi, Vietnam Tel. + 84 4 3775 9816 /3835 8039/ 3835 8038, fax + 84 4 3835 6872 iccr.tecos@gmail.com www.tecos.com.vn
7		Intergraph Asia Pacific Intergraph Corporation Pty Ltd 660 Doncaster Road, Doncaster, Vic. 3095 Australia Tel. + 61 3 9856 1937, fax + 61 3 9856 1999 Contact: Fiona Lorenzini, fiona.lorenzini@intergraph.com www.intergraph.com
8 & 9	 	Ministry of Natural Resources and Environment (MONRE) 83 Nguyen Chi Thanh, Dong Da, Hanoi, Vietnam Tel. + 84 4 8 343 911, fax + 84 4 8 359 211 www.monre.gov.vn The Vietnam Association of Geodesy, Cartography and Remote Sensing (VGCR) Room 302, Block 5, B26, Nguyen Hong St., Dong Da Dist, Hanoi, Vietnam Tel. + 84 4 293 6975, fax + 84 4 826 7398 vgcr.association@gmail.com www.vgcr.org.vn

10		Media Corner
11		DigitalGlobe International, Inc. 1 Kim Seng Promenade, #09-01 Great World City East Tower Singapore 237994 Tel. +65.6389.4851, fax +65.6732.9010 www.digitalglobe.com
12	 	SISC Vietnam instrumentation JSC 16 Trang Thi Str., Hoan Kiem Dist Hanoi, Vietnam Contact: Hoang Anh Tuan, hoanganhtuan@sisc.com.vn Internet: www.sisc.com.vn Leica Geosystems Geomatics Division, Technologies Pte Ltd 2 Woodlands Sector 1 #01-10 Woodlands, East Industrial Estate Singapore 738068 Tel. + 65 6511 6511, fax + 65 6511 6599 Contact: Wong Pak Yeong, pak-yeong.wong@leica-geosystems.com
13		Aerial Photo – Topography Company 51 Huynh Thuc Khang St., Dong Da Dist. Hanoi, Vietnam Tel. + 84 4 8352001 - 8351665 Fax + 84 4 8351565 aptvn@hn.vnn.vn
14		Survey and Aerial Mapping Corporation – Ministry of National Defence – SAMCOM Trancung street, Tuliem district Hanoi, Vietnam Tel. + 84 4 37558092; 0903415427
15, 18		ATLAS Hydorgraphic Kurfuerstenallee 130 D-28211 Bremen, Germany Tel. + 49 421 457 1175, fax + 49 421 457 3449 Contact: Stefan Koennecke, stefan.koennecke@atlashydro.com www.atlashydro.com
16		FAO Viale delle Terme di Caracalla 00100 Rome, Italy Tel. + 39 06 57051, fax + 39 06 57053252 Contact: Mika Törhönen, mika.torhonen@fao.org www.fao.org
17		International Federation of Surveyors (FIG) Kalvebod Brygge 31-33, DK-1780 Copenhagen, Denmark Tel. + 45 3886 1081, fax + 45 3886 0252 fig@fig.net www.fig.net

For 40 years governments at all levels have relied on geospatial solutions from Intergraph. Local, state, and central governments from around the world use Intergraph solutions for infrastructure management and land information management. These solutions use best-of-class geospatial technology that is open, enterprise scalable, and supports industry data standards for solving government business problems. Any government unit on any level may be enabled via spatial data infrastructures (SDIs) for government collaboration or public distribution of information.

Intergraph is proud to be a Silver Sponsor at this year's 7th FIG Regional Conference

For more information contact Ashok Magan on +64 21 419 704 or visit www.intergraph.com



"Our mission is to provide customers with fast, reliable and up-to-date geospatial information for a wide range of property transaction and land use needs."

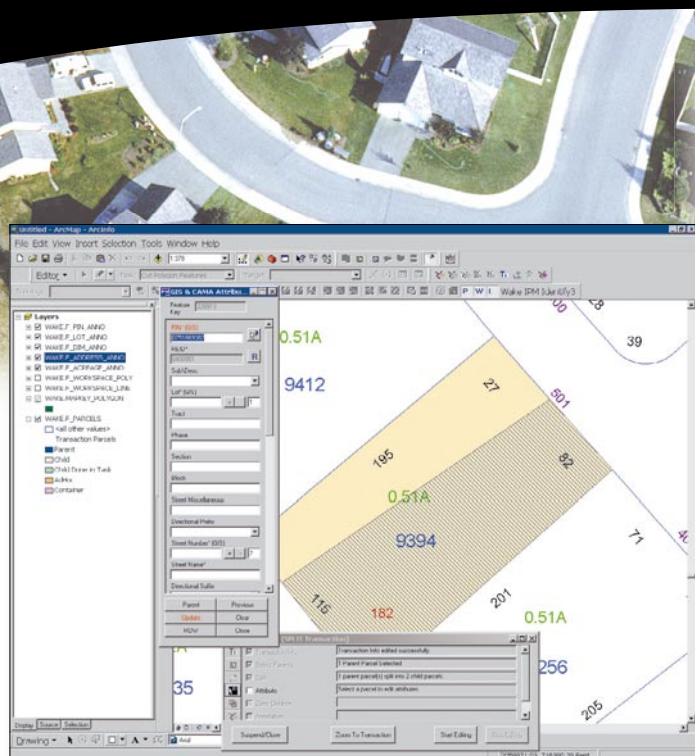
"Due to the massive volume of requests we receive for such information, we would have been less successful without the powerful, flexible solutions and support from Intergraph."

Tom Dijkstra
Director of Services, The Netherlands' Kadaster



GIS Provides the Geographic Advantage

Improved Accuracy, Assessment, and Analysis



Parcel Editing

ESRI® ArcGIS® technology integrates all land management functions throughout the organization. Assessors need efficient and accurate mapping; fair and equitable assessment of all real property; and timely access to ownership, assessment, and map data. ArcGIS fulfills these needs with tools that perform in the field, on the desktop, over the Internet, and across the enterprise.

ArcGIS is used by hundreds of counties across the United States and forms the backbone of dozens of national cadastre agency systems. It is also the first choice of many application developers who provide land records solutions.

To learn how ESRI ArcGIS technology can help your county, contact ESRI today.

To learn more, find detailed case studies at
www.esri.com/landrecords.



ESRI—The GIS Company™

To locate the ESRI International Distributor in your area visit
www.esri.com/international

OPENING CEREMONY AND PLENARY SESSIONS

Opening Ceremony

Time: Monday 19 October, 9:00–10:30

Venue: Room 313, NCC

- *Cultural programme*
- *Welcome Address* – Dr. **Dang Hung Vo**, President of VGCR
- *Welcome Address* – Mr. **Andrew Speedy**, FAO Representative in Vietnam



Dr **Andrew Speedy** is FAO Representative in Vietnam. He came in 2006 from FAO Headquarters in Rome where he was Senior Officer in the Animal Production and Health Division since 1998. He graduated with an MA and PhD from the University of Cambridge, UK, and spent nine years (1972-1981) in agricultural research, teaching and extension in Scotland. He was Lecturer in Agricultural Science at the University of Oxford and Tutor in biological sciences at Christ Church from 1981 to 1998. In 2001, he was elected an Emeritus Student (Fellow) of Christ Church, Oxford. In 2005, he was made a Visiting Professor at the Royal Agricultural College, Cirencester, UK. He has worked in Africa, Asia, Europe and Latin America.

- *Welcome Address* – Dr. **Mohamed El Sioufi**, Head, Shelter Branch, UN-HABITAT



Dr **Mohamed El Sioufi** is the Head of the Shelter Branch in UN-HABITAT. He has 32 years of experience in architecture, housing and urban planning. Since 1995 he has worked for UN-HABITAT in training and capacity building, policy and technical cooperation and the development of global normative norms and guidelines. His experience in human settlement spans a variety of specialized fields including capacity building in sustainable urban development including historic cores, housing policy and strategy, slum upgrading, climate change mitigation through sustainable building materials and construction technologies, post disaster rehabilitation, environmental planning and management.

- *Opening Welcome Address* – Prof. **Stig Enemark**, FIG President
- *Cultural programme*
- *Opening Keynote Address* – Mr. **Pham Khoi Nguyen**, Minister of Environment, Vietnam Government



Dr. **Pham Khoi Nguyen** (b. 1950) has received Doctor's degree in Economics and Master's degree in Geology. Mr. Nguyen is a member of Party Central Committee. He is currently the Minister of Natural Resources and Environment in the Government of Vietnam.

- *Cultural programme*

Plenary Sessions

PS 1 – Land Governance and Land Administration

Time: Monday 19 October 2009, 11:00–12.30

Chair: Prof. Stig Enemark, FIG President



Mr. Keith Clifford Bell, World Bank, East Asia Pacific Region, USA:

New Trends in Land Administration and Management and the World Bank Support for Projects in the East Asia Region

In any country, reform of land administration and management is a major investment of capital and human resources and requires strong and consistent leadership in order to achieve effective, sustainable outcomes.

In the East Asia Region, the World Bank, in collaboration with other development partners, have assisted, or are continuing to fund land administration and management (LAM) projects in Thailand, Indonesia, Philippines, Cambodia, Lao People's Democratic Republic and Vietnam. The Bank's program of "lending" projects have had varying degrees of emphasis on social equity and stability, economic and fiscal growth, environmental responsibility and sustainable development. In post-conflict countries, tenure security and access to land are major factor in providing long-term stability, whereas development of land markets are seen as generating durable results.

This paper discusses the World Bank LAM program across the East Asia Region and in particular the range of contemporary issues being addressed including: governance; access to land for development concessions along with the related issues regarding compulsory land acquisition, valuation and compensation; gender mainstreaming; institutional and policy reforms; focused capacity building; and the utilization of information and communications technology (ICT).

Keith Clifford Bell joined the World Bank in 2003, after a distinguished career in the public sector and military in Australia, culminating as the Surveyor-General of Victoria, 1999–2003. Prior to this he held senior executive positions in the Planning and Land Management Authority of the Australian Capital Territory Government, was the Chief Executive Officer of the Australian New Zealand Land Information Council and the Director of the National Land Data Center in the Australian Government. Within the World Bank, he has responsibility for leading the World Bank's land administration and management program throughout the East Asia Region. He also advises other World Bank regions including the Middle East and North Africa. Keith is a licensed surveyor and professional engineer.



Dr. Paul Munro-Faure, Chief of the Land Tenure and Management Unit, FAO:
Responsible Governance of Tenure and the FAO Voluntary Guidelines

The FAO Voluntary Guidelines will be developed to provide practical guidance on responsible governance of tenure as a means to respond to global challenges. In a situation of increasing pressure and growing competition on resources, responsible governance of tenure can enhance livelihoods and support social and economic development. The Voluntary Guidelines aim to provide a framework and a point of reference that stakeholders can use when developing their own policies and activities in the land sector.

Dr. Paul Munro-Faure is Chief of the Land Tenure and Management Unit of the Food and Agriculture Organization (FAO) based in Rome. He is a Chartered Surveyor with qualifications in land management, rural planning and public sector land management, with extensive practical experience in the agricultural and urban sectors in the developed market economies, in the transitional economies of Central and Eastern Europe and the CIS, in the Asia/Pacific region and in Africa. He has been substantially involved in the UK's Royal Institution of Chartered Surveyors and chaired the International Federation of Surveyors' (FIG) Commission 7 on Cadastre and Land Management 1998–2002.



Mr. Ton Gia Huyen, Former Director General, General Department of Land Administration and Mrs. Tran Thi Minh Ha, Director, International Relation Department, Ministry of Natural Resources and Environment, Vietnam:
Vietnam Land Administration – the Past, Recent and for the Future



Vietnam has a total land area of 32,924,064 ha. It is estimated that there are 13 million households in rural areas and 3 million households in urban areas. The bulk of the country's agricultural land is located in the major deltas and in the narrow central coastal plain. There are estimated to be between 70–100 million land parcels in the country.

In 1986 the State of Vietnam for the first time adopted the renovation policy named as "DOI MOI" leads to the switch from centralized command economy to a market oriented multisector economy. Land is the property of the entire people and it subject to exclusive administration by the state, and state is also the owner's representative to allocate land to all institutions, organizations households and individuals for stable and long term use. Though land is

the property of entire people, but building erected in the land can be privately owned so that individual title over the land upon which a building has been erected is acknowledge by law, as the right of land use, and the land user being granted a legal title: the certificate of land use right.

In 2007, the Government of Vietnam promulgated a new decree focusing in three main ideas: the first is to issue the legal criteria for recognizing the land use right to current land-users those have no any legal documents of land use; the second is to permit foreign investors to carrying out houses building projects in commercial purpose with the rights and obligations similar to domestic investors; the third is to specifically stipulate the publicized and transparent procedures to perform the compulsory land conversion measure, which guarantees the benefits of affected land-users. Drastic innovation of the land legislation system has created driving force for development of industrial and service economy.

The State of Vietnam has decided the road map of development that Vietnam will become an industrialized country in 2020. The land management tasks in the period from now to 2020 would be focused on: (i) completion of national land information system.

Mr. Ton Gia Huyen (b. 1936) holds pedology engineer degree in 1958 at the South China Agricultural University. In 1978, he holds the Post graduation degree on "Ecosystem management and environmental protection at the Technical University of Dresden. In 1958 he started to work for Ministry of Agriculture and Forestry as a technical official. In 1978, he was promoted to the post of Deputy Director of the Department of Land Management. In the period 1983–1996, he was appointed to the post of General Director of the General Department of Land Administration. From 1996 to 2000, he worked as a Senior Advisor for Vietnam Government, and he has retired in 2000. In current time, he works as a member of the central committee of the Association for Soil Science and as a Senior Researcher of the Institute for Urban Studies and Infrastructure Development.

Mrs. Tran Thi Minh Ha (b. 1959) holds the Bachelor's degree in 1982 at the Hanoi University of Teachers' Training, and the Bachelor of Law degree in 1996 at the Hanoi National University. In 2003, she holds the Master of Law degree at the Hanoi National University. In the period 1983–1994, she worked as official for the Department of Science and International Cooperation, General Department of Land Administration. In 1994, she was promoted to the post of Deputy Director of the Department of Science and International Cooperation. When the Ministry of Natural Resources and Environment was established, she has been appointed to the post of Director of Department of International Cooperation of this Ministry.

Mrs. Tran Thi Minh Ha is a member of The Vietnam Lawyers' Association and a member of The Association for Soil Science.

PLENARY SESSIONS (CONTINUED)

PS 2 – Infrastructures for Sustainable Environment

Time: Tuesday 20 October 2009, 9:00–10:30

Venue: Room 313, NCC

Chair: Mr. Matt Higgins, FIG Vice President, Australia



**Ms. Jude Wallace, Land Policy Lawyer and Researcher,
University of Melbourne, Australia:**
Land Acquisition in Developing Economies

Land administration theory has developed a new, multi-disciplinary approach to building, designing and managing land administration systems (LAS). This articulation of the approach runs parallel to development of land indicators to improve reliability and usefulness of international comparisons of LAS tools, especially in response to demands for good governance.

These developments form the background to formulation of human rights based land acquisition standards. However, land delivery processes in general, and the sub-set of compulsory land acquisition and resettlement processes, in particular, are complex and cross-cutting. In developing countries, technical issues, rather than humanitarian issues, tend to paralyze attempts to reform of land delivery processes. Capacity building is therefore a key component of reform of land acquisition processes.

Jude Wallace is a land policy lawyer and researcher. She works in international land administration, dealing with systems to deliver social, environmental and economic sustainability. Her policy analysis spans all land tenure types used by the world's people, all methods of securing access to land and resources and the expanding opportunities created by new technologies.

Her research includes designing modern land administration systems for complex property markets, betterment systems for rural land tenures systems, and modeling of processes and transactions associated with social transitions and land markets. Her international consultancy work includes projects in Australia, United Kingdom, Indonesia, East Timor, Vietnam and Iran. As Law Reform Commissioner for Victoria she worked on reforms of land law and administration, mining law, and subdivision law and procedures.



Dr. Tran Thuc, Director, Vietnam Institute of Meteorology, Hydrology and Environment, Vietnam:
Climate Change in Vietnam and Response

Climate change impacts to Vietnam are serious, a challenge to the cause of hunger eradication and poverty reduction, millennium development goals, and country's sustainable development. Most vulnerable sectors and regions to climate change are water resources, agriculture and food security, public health, deltas and coastal areas. It is found that chang-

es of climate factors and sea level have the following noticeable feature: Over the past 50 years, annual average temperature has increased about 0.5 to 0.7°C; Typhoon trajectory moves southward and typhoon season shifts to later months of the year and there were more typhoon with high insensitive; Rainfall increases in rainy season (Sep. to Nov.) causing more frequently severe floods in the Central and Southern Vietnam; etc. Climate change and sea level rise scenarios for Vietnam are developed and the global climate model (MRI-AGCM), PRECIS model of the Hadley Center – UK, and statistical downscaling method area applied.

Mr. Tran Thuc (b. 1954) holds the Doctor Engineer degree in the field of Hydraulics and Coastal Engineering at Asian Institute of Technology (AIT), Bangkok, Thailand in 1991. He started to work as researcher in the field of meteorology, hydrology and environment since 1979. In current time, he works for the Vietnam Institute of Meteorology, Hydrology and Environment, Ministry of Natural Resources and Environment, Hanoi, Vietnam in the post of Director General.

Dr. Tran Thuc has almost 30 years' experience in environmental and water resources management, institutional capacity building, policy analysis, planning, management, monitoring, evaluation and development of environmental and water resource projects.

Dr. Tran Thuc is the Chairman, Vietnam National Committee for the International Hydrological Program (IHP), and the Co-Chairman, Vietnam – US Working Group on Climate Change Adaptation and Mitigation.



Prof. Chris Rizos, President Elect, IAG, Australia:
The Importance of Geodetic Infrastructure

Geodesy is the science of measuring and mapping the geometry, orientation and gravity field of the Earth including the associated variations with time. One of the missions of Geodesy has been the foundation for high accuracy surveying and mapping. Modern Geodesy involves a range of measurement technologies, from which the analysis of data contributes to our knowledge of the solid earth, atmosphere and oceans through earth observation of a wide range of parameters associated with Global Change, both natural and anthropogenic. The space technologies include: Global Positioning System/Global Navigation Satellite Systems (GPS/GNSS), Satellite Laser Ranging (SLR), Very Long Baseline Interferometry (VLBI), Satellite Altimetry, Gravity Mapping Missions such as GRACE, CHAMP & GOCE, and Differential Interferometric Synthetic Aperture Radar (DInSAR). Many of these geodetic technologies require ground and space infrastructure in the form of stable observatories and advanced satellite missions. Furthermore, a variety of 'services' have been established in recent years to ensure high accuracy and reliable 'geodetic products' to all users. This paper describes the multi-faceted nature of this infrastructure and reaffirms the

value of the geodesy for not only traditional tasks such as surveying and mapping, but also the contributions being made to the geosciences.

Chris Rizos is a graduate of The University of New South Wales (UNSW), Sydney, Australia; obtaining a Doctor of Philosophy in Satellite Geodesy in 1980. Chris is currently the Head of the School of Surveying & Spatial Information Systems at UNSW. Chris has been researching the technology and applications of GPS since 1985, published over 450 journal and conference papers, and established over a decade ago the Satellite Navigation and Positioning group at UNSW, which is today the largest and best known academic GNSS and wireless positioning technology research laboratory in Australia. Chris is the Vice President of the International Association of Geodesy, a member of the Executive and Governing Board of the International GNSS Service (the IGS), and a member of the IAG's Global Geodetic Observing System Steering Committee. Chris is also a Fellow of the IAG, a Fellow of the Australian Institute of Navigation, is a member of a number of Australian geodesy and GNSS committees, and is an Honorary Professor of Wuhan University, China.

PS 3 – Capacity Building

Time: Wednesday 21 October 2009, 9:00–10:30

Venue: Room 313, NCC

Chair: Mr. Iain Greenway, FIG Vice President, United Kingdom



Prof. Holger Magel, FIG Honorary President, Technical University of Munich, Germany:
Capacity Building in Land Management: The Need for Global Academic Partnership

Though the importance of land management is a widely recognized and a crucial issue at all national and international policy, decision making and discussion levels, still many developing countries are not able to exercise it properly due to serious lack of professional capacity. Therefore, there is a significant need for capacity development and thus for academic programs dealing with land management. This includes basic and continuous educational programs which could enable professionals to deal with the complex issues of implementing sustainable land management and dealing with current national and international challenges.

Univ.Prof. Dipl.-Ing. Dr.-Ing. **Holger Magel**, born in Neuburg/Donau in 1944, obtained in 1977 the degree of a Doktor-Ingenieur about rural planning. Acting with the Bavarian State Ministry of Food, Agriculture and Forestry in the Rural Development Department since 1978, in charge of building up the Bavarian Village Renewal Programme as well as establishing a new Method of Landscape and Regional planning within Rural Development. Since 1995 Head of the Rural Development Department and Director General of the Bavarian Administration of Rural Development. In 1993 appointment as an honorary professor for Rural Development at the Munich Technische Universität. President of the Bavarian Academy "Ländlicher Raum" (Rural Areas) since 1994. Advisor of the European Commission for Rural Development in Eastern

Germany in 1992/93; chairman of the German Bund-Länder Team for Village Renewal from 1984–1995; member of the board of the European Association for Rural Development and Village Renewal. Chair of the working group land readjustment and land economics of the German Geodetic Commission since 2004. Acting as an expert in Eastern- and South Europe as well as in Asia and South America. More than 250 expert publications and books on land consolidation, Village renewal, landscape planning, rural development and civil society. President of FIG, 2002–2006. Since 1998 Full Professor and Director of Institute at the TUM. Honorary President of FIG and an Honorary Member of DVW..



Prof. Dang Nam Chinh, Dean of Faculty of Surveying and Mapping, Hanoi University of Mining and Geology and Prof. Vo Chi My, Vice-President, Vietnam Association of Geodesy, Cartography and Remote Sensing, Vietnam:



Innovation in Surveying and Mapping Training for an Integrated World

At the beginning of the 21st century, all nations in the world are facing such global problems as environmental pollution, the mitigation of natural disasters, global climate change, exhausted mineral resources, lack of clean water, foodless and poverty. The National Spatial Data Infrastructure plays very important role in creating a model of the Real World. It is well known that survey and mapping work is the process of spatial data production to set up GSDI and NSDI on the basis of accepted globally data standards. The digital concept of survey and mapping requires a new concept of training for the digital surveying and mapping. In implementation practice, several universities in Vietnam have decided to open the training on Geomatics or Geoinformation instead of traditional training on survey and mapping. In association with training of surveyors on technology, spatial data production, this training should be focused on several applications of GSDI/NSDI to support sustainable development planning, to ensure decisions making in leading works, to facilitate dialogs between governments and people, to forecast natural/human disasters, to monitor impacts of development on social and environmental sustainability, etc.

Mr. **Dang Nam Chinh** (b. 1950) holds surveying engineer degree in 1974 at the Hanoi University Mining and Geology (HUMG), and PhD degree in the field of geodesy in 1990 at the University of Science and Technology AGH, Cracow, Poland. Since 1975, Dr. Dang Nam Chinh has started to work as the lecturer of Geodesy and Hydrographic Survey for the Hanoi University of Mining and Geology (HUMG). In 2004, Dr. Dang Nam Chinh has been elected as Dean of the Faculty of Surveying and Mapping, HUMG, and he is working in this post up to present.

Dr. Dang Nam Chinh is experienced over 30 years working in the field of geodesy, concentrated on GPS application for geodesy, geodetic computation, hydrographic survey.

PLENARY SESSIONS (CONTINUED)

Mr. **Vo Chi My** (b. 1948) holds Master of Science degree in the field of Surveying in 1973 at the University of Science and Technology AGH, Cracow, Poland. After 14 years, he holds the PhD title in the same University (1987). Since 1974, Dr. Vo Chi My has started to work as the lecturer of Mine Surveying for the Hanoi University of Mining and Geology (HUMG). In 1993, he has promoted to the post of Head of Mine Surveying Department, Faculty of Surveying and Mapping, HUMG. In 1998, he worked for the HUMG as director of the International Cooperation Department. Since 2000 to present, he has worked for the HUMG as the Head of Mine Surveying Department, Dr. Vo Chi My is experienced over 30 years working in the field of surveying and mapping with main researches focused on mine survey, land survey and environment monitoring.

Dr. Vo Chi My is a Presidium member of the International Society of Mine Surveying (ISM) and Chairman of Vietnam Society for Mine Surveying. He is Vice-President of the Vietnam Association of Geodesy, Cartography and Remote Sensing, in charge of science, technology and international cooperation, and a presidium member of the Vietnam Mining Association.



Mr. Teo CheeHai, FIG Vice President, Malaysia:

Building the Capacity – Professionalism and Ethics

In the marketplace, Capacity Building is of major importance to everyone involved in the development and enhancement of trade in professional services and it involves upgrading human resources, uplifting inter-organizational trust and co-operation, strengthening agencies and stakeholders, and building networks and institutions. The importance to inculcate professionalism and ethics particularly when upgrading human resources and uplifting trust and confidence could not be overstated. The ASEAN Framework Arrangement for the Mutual Recognition of Surveying Qualifications requires professionalism and ethical behavior from surveying professionals so

recognized under the MRA. Furthermore, the present economic crisis, the worse many has seen in their lifetime, brings into sharp focus the very professionalism and ethics of professionals, not only in the commercial and financial realm, but at all levels of the economy and civil society.

The current FIG Council (2007–2010) has made “Building the Capacity” its key priority for its term of office and has been at the forefront promoting professionalism and ethics. This presentation discusses the importance to redouble efforts to raise the level of professionalism within the surveying practice in the aftermath of the worse economic crisis and FIG’s activities in this respect.

Teo CheeHai is Licensed and Chartered Surveyor in the private practice. He got his B.Sc. (Surveying) from the Royal Melbourne Institute of Technology in Australia in 1980. He completed his Masters of Science (Land Administration and Development) with University Technology Malaysia in 2004. He is a Fellow of the Institution of Surveyors Malaysia and the Royal Institution of Chartered Surveyors, a member of the Association of Authorised Land Surveyors Malaysia and the Institution of Surveyors, Australia. He is a Past President and Secretary General of the Institution of Surveyors Malaysia, a past Honorary Secretary General and current Council Member of the ASEAN Federation of Land Surveying and Geomatics. He is also a past Vice President, Secretary General and current Executive Council Member of the Association of Authorised Land Surveyors Malaysia, the sole FIG member association from Malaysia. In 2000, he was asked by the Ministry of International Trade and Industry Malaysia to join Malaysia’s Delegation to the ASEAN Co-ordinating Committee on Services (CCS) and subsequently to other trade negotiation forums representing the Surveying Profession. He is still a member of the Delegation and actively involved in issues relating to services liberalisation including mutual recognition arrangement. He played a key role in realizing the ASEAN Framework Arrangement on the Mutual Recognition of Surveying Qualifications that was concluded in 2007. His involvement in FIG include a membership in the Task Force on Mutual Recognition of Qualification.



[illegible]

Visit Trimble Booth #1, #4

Get your positioning right the first time. From mapping, photogrammetry and LIDAR to surveying and GNSS infrastructure networks, Trimble combines advanced positioning technologies with wireless communications, application software and services to provide complete solutions to various sectors including construction, engineering, transportation, utilities and natural resources. The result? Each one of our customers gets the industry-leading accuracy and dramatic productivity gains they need.

For a complete range of Trimble positioning solutions, visit www.trimble.com

PROGRAMME OVERVIEW AND TECHNICAL PROGRAMME

FAO Regional Consultation Meeting

Exhibition (NCC) Tuesday 9:00–17:30 Wednesday 9:00–15:30			
Monday 11:00–17:30	Tuesday 20 October	Wednesday 21 October	Thursday 22 October
Time	Time	Time	Time
8:00	Registration 8:00–17:30 (NCC)	Registration 8:00–17:30 (NCC)	Full Day Technical Tour to Ha Long Bay 7:00–20:00
9:00	Opening Ceremony (313)	Plenary Session II (313)	
10:00			
	Coffee Break	Coffee Break	
11:00	Plenary Session I (313)	Technical Sessions 3A–3E (5 parallel) (216, 313, 217, 218, 219)	
12:00			
	Lunch (NCC)	Lunch (NCC)	
13:00			
14:00	Technical Sessions 1A–1G (7 parallel) (313, 216, 217, 218, 219, 212, 219C)	Technical Sessions 4A–4F (6 parallel) (217, 313, 218, 219, 219C)	
15:00			
	Coffee Break	Coffee Break	
16:00	Technical Sessions 2A–2F (6 parallel) (313, 216, 217, 218, 219, 212)	FAO 3 (216)	
17:00			
18:00	Welcome Reception at NCC (18:00–20:00)	FAO 4 (216)	
19:00			
20:00		Vietnamese Evening at Baoson Paradise Theme Park (18:15–22:00)	
21:00		Farewell Dinner at Daewoo Hanoi Hotel (19:00–21:30)	

Sightseeing tours:

- Sunday: Full-day Hanoi city tour with lunch – FCH
- Monday: Half-day Hanoi city tour – HCH
- Tuesday: Half-day Hanoi – Bat Trang Ceramic Village – HBT

Post-conference tour:

- Thursday–Friday: Ha Long Bay, overnight on deluxe junk – HLJ-2

ESRI Pre-conference Seminar

Land Administration and GIS

- Sunday, 18 October 2009 9:00–12:30
- Venue: Press Club, 59 A Ly Thai To St., Hanoi, Vietnam
- Free pre-registration preferred

President Room:

350

FIG Office Room:

218

Additional Commission meetings:

Rooms 212A, 212B, 212C and 219C



Monday 19 October 2009

Opening Ceremony

Time: **Monday 19 October, 9:00–10:30**
Venue: Room 313, NCC

- Cultural programme
- Welcome Address –
Dr. **Dang Hung Vo**,
President of VGCR
- Welcome Address –
Mr. **Andrew Speedy**, FAO
Representative in Vietnam
- Welcome Address –
Dr. **Mohamed El Sioufi**, Head,
Shelter Branch,
UN-HABITAT
- Opening Welcome Address –
Prof. **Stig Enemark**,
FIG President
- Cultural programme
- Opening Keynote Address –
Mr. **Pham Khoi Nguyen**, Min-
ister of Environment, Vietnam
Government
- Cultural programme

Monday 19 October 2009 14:00–15:30

TS 1A – Land and Natural Resources Governance – Joint FIG / FAO Session

Time: **Monday, 19 October 2009, 14:00–15:30**
Venue: Room 313, NCC

Commission: 313, NCC
Chair: Dr. **Paul Munro-Faure**,
Chief of the Land Tenure and
Management Unit, FAO
Rapporteur:

Dr. **Mika Törhönen**, FAO: *Good Governance in Land Tenure and Administration* (3789)

Mr. **Danilo R. Antonio**, Co-ordinator, Global Land Tool Network (GLTN), UN-HABITAT: *Towards Good Land Governance* (3759)

Dr. **Paul Munro-Faure**, Chief of the Land Tenure and Management Unit, FAO: *Compulsory Acquisition of Land and Compensation* (3790)

Mr. **Tony Burns**, Australia, Dr. **Klaus Deininger**, Germany, Dr. **Harris Selod**, France and Dr. **Kate Dalrymple**, Australia: *Implementing the Land Governance Assessment Framework* (3775)

Plenary Session I – Land Governance and Land Administration

Commission: All
Time: **Monday 19 October 2009, 11:00–12:30**
Venue: Room 313, NCC

Chair: Prof. **Stig Enemark**, FIG
President

Mr. **Keith Clifford Bell**, World Bank, East Asia Pacific Region, USA: *New Trends in Land Administration and Management and the World Bank Support for Projects in the East Asia Region* (3750)

Dr. **Paul Munro-Faure**, Chief of the Land Tenure and Management Unit, FAO: *Responsible Governance of Tenure and the FAO Voluntary Guidelines* (3787)

Mr. **Ton Gia Huyen**, Former Director General, General Department of Land Administration and Mrs. **Tran Thi Minh Ha**, Director, International Relation Department, Ministry of Natural Resources and Environment, Vietnam: *Vietnam Land Administration – the Past, Recent and for the Future* (3762)

TS 1C – Advances in GNSS Positioning and Applications I

Time: **Monday, 19 October 2009, 14:00–15:30**
Venue: Room 217, NCC

Commission: 5 and 6
Chair: Mr. **Rob Sarib**, Australia

Rapporteur: Dr. **Gethin Wyn Roberts**, Commission 6 Chair Elect, United Kingdom

Dr. **Volker Schwieger**, Mr. **Jürgen Schweitzer** and Mr. **Detlev Kosmann**, Germany: *GPS Precise Point Positioning as a Method to Evaluate Global TanDEM-X Digital Elevation Model* (3542)

Mr. **Joël Van Cranenbroeck**, Belgium, Mr. **Vincent Lui**, Hong Kong SAR, China and Prof. **Chris Rizos**, Australia: *Ultimate Advance in GNSS RTK Monitoring Accuracy* (3611)

Dr. **Ivo Milev**, Germany: *EUPOS (European Position Determination System) a Cooperation of 17 European Countries for Union Use of Spatial Data* (3952)

Mr. **T. Aris Sunantyo**, Indonesia: *GNSS CORS Infrastructure and Standard in Indonesia* (3711)

TS 1B – Land Governance and Land Management

Time: **Monday, 19 October 2009, 14:00–15:30**
Venue: Room 216, NCC

Commission: 7
Chair: Mr. **Godfried Barnasconi**, the Netherlands

Rapporteur: Dr. **Nguyen Quang Minh**, Vietnam

Dr.-Ing. **Fahria Masum**, Germany: *Urban Fringe Management and Role of Good Governance: Integrating Stakeholders in Land Management Process* (3648)

Rev. **Andrus Nnaemeka Ukaejiofo**, Nigeria: *Identifying Appropriate Tools for Effective Land Governance in Nigeria* (3643)

Mr. **Ganesh Prasad Bhatta**, Nepal: *How Successful Is the Land Distribution to 'Freed Bonded-Labourer' (Mukta Kamiya) in Nepal* (3703)

Dr. **Quang Minh Nguyen**, Vietnam: *Enhancing Procedures for Land Use Applications and Registration for Investors in Can Tho City* (3567)

Dr. **Yoji Kunimitsu**, Japan: *Public Capital Stocks for Improving Farmland Quality in Japan: Comparison Between the Less-favored Area and the Flat-Farming Area* (3619)

THE FIG FOUNDATION – Building a Sustainable Future



The *FIG Foundation* is an independent body under the International Federation of Surveyors.

- The Foundation has been established for the purpose of raising funds to finance surveying education development projects and supporting young surveyors in order to build a sustainable future.
- The Foundation funds shall not be used to support the normal activities of FIG.
- The Foundation is administered by the FIG Office in Copenhagen and directed by a Board of five Directors appointed by the FIG Council.

The Directors of the Foundation will announce every year the scholarships and grants available.

How can I contribute?

Companies, associations, institutions, events, surveyors' groups and individuals may contribute to the Foundation by:

- Donations which will be recognised by a plaque or a certificate of different categories reflecting the sum of donation as follows:

- platinum plaque EUR 25,000
- gold plaque EUR 10,000
- silver plaque EUR 5,000
- bronze plaque EUR 1,000.

- Donations to support specific projects or by offering scholarships.

Donors and Benefactors may use the FIG Foundation logo to promote their project donations or scholarships.

- Voluntary donation when registering to FIG events.

- Attending social functions such as the FIG Foundation Dinners held during every FIG Congress and Working Week and other events.

Monday 19 October 2009 14:00–15:30

TS 1E – SDI and Land Administration

Time: **Monday, 19 October 2009, 14:00–15:30**

Venue: Room 219, NCC

Commission: 3 and 7

Chair: **Mr. Daniel Roberge**, Chair Elect FIG Commission 7, Canada
Rapporteur:

Mr. Warwick Jones and **Mr.**

Michael Ellyett, New Zealand and **Mr. Ngo Duc Mau**, Vietnam: *Spatial Data Infrastructures (World Best Practice) Are Caused by State and Private Sector Collaboration with Shared Responsibilities* (3732)

Mr. Babu Ram Acharya, Nepal: *Adopting Geo-ICT for Land Administration: Problems and Solutions* (3656)

Mr. Kambiz Borna, **Dr. Mohamad Saadi Mesgari** and **Dr. Ali Mansourian**, Islamic Republic of Iran: *Database System Architecture for Fiscal Cadastre* (3583)

Mr. Nelson Wijenayake, Sri Lanka: *Geo-spatial Metadata Information System to Support State Land Administration in Colombo* (3559)
This paper has not been presented at the conference.

TS 1F – Professional Co-operation at Regional Level and Experiences on Promoting Professional Ethics

Time: **Monday, 19 October 2009, 14:00–15:30**

Venue: Room 212, NCC

Commission: 1 in co-operation with CLGE and ASEAN Flag

Chair: **Mr. Yaacoub Saade**, Chair of FIG Commission 1
Rapporteur: **Ms. Leonie Newnham**, Chair Elect of FIG Commission 1

Mr. Henning Elmstroem, President of CLGE, Denmark: *CLGE – Professional Co-operation in Europe* (3801)

Prof. Frances Plimmer, United Kingdom: *Professional Ethics – The European Code of Conduct* (3609)
Ms. Diah Kirana Kresnawati, President of the ASEAN Federation of Land Surveying and Geomatics, Indonesia (invited): *ASEAN Flag – Professional Co-operation Concept for South East Asia* (3803)

TS 1G – Remote Sensing for Sustainable Development

Time: **Monday, 19 October 2009, 14:00–15:30**

Venue: Room 219C, NCC

Commission: 6 and 3

Chair: **Prof. Pham Van Cu**, Vietnam
Rapporteur: **Mr. Tong Si Son**, Vietnam

Mr. Son Tong Si, **Ms. Lan Pham Thi** and **Prof. Cu Pham Van**, Vietnam: *Land Cover Change Analysis Using Change Vector Analysis Method in Duy Tien District, Ha Nam Province in Vietnam* (3666)

Dr. Milan Talich, Czech Republic: *Information Technology for Web Application in Surveying* (3738)

Dr. Fazel Amir and **Ms. Tayeb Tabatabaie**, Islamic Republic of Iran: *EPM Approach for Erosion Modeling by Using RS and GIS* (3707)

Dr. Nguyen Lam-Dao, Vietnam, **Dr. Armando Apan**, Australia, **Dr. Thuy Le-Toan**, France, **Dr. Frank Young**, Australia, **Prof. Trung Le-Van**, Vietnam and **Dr. Alexandre Bouvet**, France: *Towards an Operational System for Rice Crop Inventory in the Mekong River Delta, Vietnam Using Envisat ASAR Data* (3691)

Dr. Tran Thi Van, **Prof. Le Van Trung** and **Dr. Hoang Thai Lan**, Vietnam: *Application of Thermal Remote Sensing in Study on Surface Temperature Distribution of HCM City* (3693)

Mr. Javed Mallick and Assistant **Prof. Atiqur Rahman**, India and **Ms. Pham Viet Hoa**, Vietnam and Assoc. **Prof. P. K. Joshi**, India: *Assessment of Night-time Urban Surface Temperature – Land Use/Cover Relationship for Thermal Urban Environment Studies Using Optical and Thermal Satellite Data* (3754)



YOUNG SURVEYORS NETWORK



Young Surveyors Network is one of the latest groups established under FIG. The idea to form such a network has been based on the need to increase the number of Young Surveyors participating at FIG events as well as promoting FIG as a global network for surveyors.

The vision is to integrate the youth of the profession within FIG comes out with the aims of Young Surveyors WG:

- To improve the number of young professionals participating within the FIG.
- To help young professionals in the beginning of their careers with contacts.
- To increase co-operation between the commissions and young professionals.

YOUNG SURVEYORS

In order to generate the seamless structure of the profession without any borders, Young Surveyors Network is the bridge between young and experienced colleagues. The network is dedicated for the next generation of the surveyors with support from today's experienced professionals.

The Working Group consists of a board with young surveyors from different countries and a database pool of Young Surveyors' Members; from Undergraduate to PhD Students and Young Professionals, Mentors, Academic Members and Corporate Members. The network has further good connections with different international, regional and local organizations.

Young Surveyors Network is a portal to provide the communication for all. Beside the network, events are organized during FIG Working Weeks and Congresses. Special registration fees to the events are supported for the young surveyors from FIG. With the periodic e-newsletter and special event bulletins the network keeps its members updated with the technical, social information, opportunities and events.

To get a copy of our newsletter please send an email confirming this to Cemal Özgür Kivilcim at: kemalozgur@hotmail.com.

You are welcome to join the network.

TS 2A – Legal Aspects in Land Administration

Time: **Monday, 19 October 2009, 16:00–17:30**

Venue: Room 313, NCC
Commission: 7
Chair: Prof. **Paul van der Molen**, the Netherlands
Rapporteur: Ms. **Gertrude Pieper Espada**, Netherlands

Mr. **John Blair**, Canada: *Cambodia National Land Titling Program – Land Mines to Land Registration* (3615)

Mr. **Tan Liat Choon**, Dr. **Khadijah Binti Hussin** and Sr. **Ernest Khoo Hock Oon**, Malaysia: *Making 3D Property Legislation Feasible in Malaysia* (3547)

Dr. **Michael Barry**, Canada: *Standards for Oral Tradition Evidence: Guidelines from First Nations Land Claims in Canada* (3644)

Ms. **Naranchimeg Bagdai** and Ms. **Renchin Tsolmon**, Mongolia: *Land Privatization Practices in Transition Countries – Lessons on Transparency* (3645)

TS 2B – SIM Tools for Environmental Monitoring and Protection

Time: **Monday 19 October 2009, 16:00–17:30**

Venue: Room 216, NCC
Commission: 3, 6 and 8
Chair: Mr. **Vu Anh Tuan**, Vietnam
Rapporteur: Ms. **Pham Thi Lan**, Vietnam

Dr. **Nguyen Manh Ha**, Vietnam: *Spatial Modeling for Soil Erosion Risk in Chay Basin, in Vietnam* (3682)

Prof. **My Vo Chi**, Ms. **Lan Pham Thi** and Mr. **Son Tong Si**, Vietnam: *Monitoring Urban Space Expansion Using Remote Sensing Data in Ha Long City, Quang Ninh Province in Vietnam* (3687)

Dr. **Tuan Vu Anh**, Vietnam: *Spatial Analysis for Mitigation the Environmental Impacts of Ho Chi Minh Road* (3695)

Dr. **Bui Ta Long** and Mr. **Cao Duy Truong**, Vietnam: *Waste: A Computer Tool for Solid Waste Management in the Urban Areas* (3696)

Dr. **Bui Ta Long** and Mr. **Duong Ngoc Hieu**, Vietnam: *Developing Information System Supporting Environmental Management for Industrial Zones* (3697)

Dr. **Hien Le Thi Thu**, Vietnam: *Application GIS on Environmental Zoning and Management – Case Study in Sontay, Hanoi* (3683)

TS 2C – Reference Frames and Datums

Time: **Monday, 19 October 2009, 16:00–17:30**

Venue: Room 217, NCC
Commission: 5 and 6
Chair: Prof. **Lan Pham Hoang**, Vietnam
Rapporteur: Mr. **Mikael Lilje**, Chair Elect of FIG Commission 5, Sweden

Prof. **Lan Pham Hoang**, Vietnam: *Building a Unified Height System with Various Initial Points for the ASEAN Countries* (3690)

Dr. **György Busics** and Dr. **Mihály Ágfalvi**, Hungary: *The New Role of Geodetic Networks in Hungary* (3637)

Dr. **Chalermchon Satirapod**, Thailand, Mr. **Wim Simons**, the Netherlands, Col. **Ekkapob Panumastakul** and Dr. **ITTHI Trisrisatayawong**, Thailand: *Updating the Thai Coordinate Reference Frame to ITRF2005 Using GPS Measurements: Observation on a Diversion between ITRF2000 and ITRF2005 in Southeast Asia Region* (3566)

Dr. **Enrico C. Paringit**, Usec. **Diony A. Ventura** and Dir. **Jose Galo P. Isada**, the Philippines: *Research and Development in Support of the Implementation of the Philippine Reference System of 1992: Results and Recommendations* (3620)

TS 2D – Societal Balance: Resources and Rights

Time: **Monday, 19 October 2009, 16:00–17:30**

Venue: Room 218, NCC
Commission: 8 and 7
Chair: Dr. **Diane Dumashie**, Chair of FIG Commission 8, United Kingdom
Rapporteur: Dr. **Fabian Thiel**, Cambodia: *Law for State Land Management in Cambodia* (3557)

Dr. **Kate Dalrymple**, Australia and Ms. **Brenda Batistiana**, the Philippines: *Bringing Gender Equity to the Surface* (3596)

Mr. **Babagana Abubakar**, Nigeria: *Land, Territory and Natural Resource Issues Affecting the Economies of the Indigenous Communities of the Sahel and the Horn of Africa* (3526)

Ms. **Lani Roux** and Dr. **Michael Barry**, Canada: *Paradigms and Cadastral Research* (3704)

Mr. **Rashid Mohammed Azzan** and Mr. **Said Salamin Ufuzo**, Zanzibar, Tanzania: *Coastal Community and Land Resources – A Case Study of Kiwengwa Coastal Village – Zanzibar, Tanzania* (3668)
This paper has not been presented at the conference.

TS 2E – Development Monitoring Tools and Standards

Time: **Monday, 19 October 2009, 16:00–17:30**

Venue: Room 219, NCC
Commission: 3
Chair: Prof. **Yerach Doytsher**, Chair Elect of FIG Commission 3, Israel
Rapporteur: Prof. **Hartmut Muller**, Germany

Mr. **Christodoulos Psaltis** and Dr. **Charalabos Ioannidis**, Greece: *Change Detection Using Machine Learning Algorithms for Development Monitoring* (3606)

Prof. **Yerach Doytsher** and Mr. **Sagi Dalyot**, Israel: *Producing Seamless Multi-Source Quality-Dependent Digital Terrain Models* (3590)

Prof. **Van Cu Pham**, Ms. **Thi Thuy Hang Nguyen** and Mr. **Phan Dong Nguyen**, Vietnam: *Comparison of Pixel Based and Object Oriented Classifications in Land Cover Mapping in the Red River Delta – Example of Duy Tien District, Ha Nam Province, Vietnam* (3663)

Mr. **Ouy Bui Ngoc** and Ms. **Ha Le Phuong**, Vietnam: *Multimedia Map for Tourism Advertisement of Ha Noi* (3662)

Dr. **Tran Bach Giang**, Vietnam: *Results of Development and Application of Geographic Information Standard in Vietnam* (3579)

Mr. **Doi Do Duc**, Mr. **Thang Nguyen-Van**, Dr. **Giang Tran Bach**, Mr. **Tuan Vo Anh** and Mr. **Toan Nguyen-Quang**, Vietnam: *Developing Vietnam's Cadastral Data Standards Based on ISO 19100* (3576)

TS 2F – Investments, Valuation and Analysis

Time: **Monday, 19 October 2009, 16:00–17:30**

Venue: Room 212, NCC
Commission: 9, 7, 8 and 10
Chair: Prof. **Kauko Viitanen**, Chair of FIG Commission 9, Finland
Rapporteur:

Prof. **Frances Plimmer**, United Kingdom: *Responsible Property Investment: Making a Difference* (3610)
This is a peer review paper.

Prof. Dr. **Winrich Voss**, Germany: *New Market-value Based Property Tax in Germany?* (3604)

Prof. Dr. **Ingolf Burstedde**, Germany: *Asset Management in the Province of Aceh, Indonesia* (3544)

Mr. **Chen-Kuang Cheng**, Dr. **Giann-Yeou Rau**, Mr. **Yen-Ting Chou** and Mr. **Wei-Teng Cheng**, Chinese Taipei: *Web-based 3-D GIS for Location Query in Real Estate Application* (3600)

FAO – FAO Regional Consultation Meeting – Preparatory Meeting

Time: **Monday, 19 October 2009, 16:00–17:30**
Venue: Room 219C, NCC
Commission: FAO
Chair:

Preparatory meeting for the FAO Regional Consultation Meeting
– by invitation only

Tuesday 20 October 2009

Plenary Session 2 – Infrastructures for Sustainable Environment

Time: **Tuesday 20 October 2009, 9:00–10:30**

Venue: Room 313, NCC

Chair: **Mr. Matt Higgins**, FIG Vice President, Australia

Ms. Jude Wallace, Land Policy Lawyer and Researcher, University of Melbourne, Australia: *Land Acquisition in Developing Economies* (3791)

Dr. Tran Thuc, Director, Vietnam Institute of Meteorology, Hydrology and Environment, Vietnam:

Climate Change in Vietnam and Response (3763)

Prof. Chris Rizos, President Elect, IAG, Australia: *The Importance of Geodetic Infrastructure* (3767)

Tuesday 20 October 2009 11:00–12:30

TS 3A – SDI in Support of Urban Management

Time: **Tuesday 20 October 2009, 11:00–12:30**

Venue: Room 216, NCC

Commission: 3

Chair: **Dr. Cam Van Nguyen**, Vietnam

Rapporteur:

Dr. Chrysos Potsiou, Greece and **Prof. Yerach Doytsher**, Israel: *Technical Tools for Environmental Urban Management* (3760)

Mr. Paul Kelly, Australia, **Mr. Rob-in McLaren**, United Kingdom and **Prof. Hartmut Müller**, Germany: *Spatial Data Infrastructure and the Environment of Urban Areas* (3657)

Mr. Oludayo Emmanuel

Abiodun, **Dr. James Bolarinwa Olaleye** and **Miss Oluwaseun Adeyomoye**, Nigeria: *Management Information Systems for Fire Risk Services in Lagos Metropolis, Nigeria* (3621)

Mr. Jianpeng Chu and **Mr. Yunjun Yao**, China, P.R.: *Design and Development of Land Resources Information System of Zibo Area Based on Client/Server* (3622)

Mr. Nazib Faizal, Indonesia: *Indonesian National Road Geotechnical Database (INROG) of Ministry of Public Works Indonesia* (3625)

Mr. Quy Bui Ngoc and **Dr. Cam Van Nguyen**, Vietnam: *Electronic Atlas for Land Management in Hanoi* (3688)

FAO 1 – Scene Setting Workshop: Voluntary Guidelines on Responsible Governance of Tenure of Land and Other Natural Resources

Time: **Tuesday, 20 October 2009, 9:00–10:30**

Venue: Room 216, NCC

Commission: FAO

Moderator:

Orapan Srisavalak-Napangchan:

Video presentation on the Governance of tenure in South East Asia (10 minutes)

Moderated discussion on Governance, Land and Natural Resources in South-East Asia Region.

TS 3B – Global and Regional Ob-serv-ing Systems and Services

Time: **Tuesday 20 October 2009, 11:00–12:30**

Venue: Room 313, NCC

Commission: 5 in co-operation with IAG, PCGIAP and IGS

Chair: **Prof. Rudolf Staiger**, Chair of FIG Commission 5, Germany

Rapporteur: **Mr. Steven Fisher**, IGS Central Bureau, USA

Dr. Chris Rizos, President Elect IAG, Australia: *Global and National Geodesy, GNSS Surveying, and CORS Infrastructure* (3558)

Dr. Ruth E. Neilan, The International GNSS Service (IGS), USA: *IGS Products and Services* (3776)

Mr. Mikael Lilje, Chair Elect, FIG Commission 5, Sweden: *Regional Reference and Observing Systems with Europe as a Case Study* (3660)

Mr. John Dawson, Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP), Australia: *PCGIAP WG1 and IAG WG 1.3* (3781)

TS 3D – Cadastre and Land Registration

Time: **Tuesday 20 October 2009, 11:00–12:30**

Venue: Room 218, NCC

Commission: 7

Chair: **Mr. Rik Wouters**, the Netherlands

Rapporteur: **Mr. Babu Ram Acharya**, Nepal

Engr. Rhea Lyn M. Dealca, the Philippines: *Initiatives to Improve Land Administration System in the Philippines* (3652)

Mr. Alexander Caparas, Prof.

Florence Galeon, **Ms. Anjilyn Mae Cruz**, **Mr. Jeark Principe** and **Ms. Vanessa Dela Cruz**, the Philippines: *Data Build-up and Transformation of Cadastral Data from Different Local Plane Coordinate System to PPCS-TM/PRS9* (3628)

Mr. Nenad Tesla, **Ms. Stojanka Brankovic** and **Ms. Zagorka Gos-pavic**, Serbia: *Real Estate Cadastre and Rights Registration Project Financed through the World Bank's Loan and through Other Donor Projects* (3548)

Ms. Ann K. Myles, Sweden: *Solving Problems – or Implementing Absent Solutions* (3631)

TS 3E – Disaster Risk Management: Approaches and Consequences

Time: **Tuesday 20 October 2009, 11:00–12:30**

Venue: Room 219, NCC

Commission: 8, 5 and 6

Chair: **Prof. Nguyen Dinh Duong**, Vietnam

Rapporteur: **Ms. Trinh Thi Hoai Thu**, Vietnam

Mr. Ian Wood, Australia and **Mr. Thai Bui Duc**, Vietnam: *Practical Application of Aerial Survey for Disaster Risk Management in Vietnam* (3591)

Mr. David Jonas, Malaysia: *How Aerial Survey in Vietnam Is Now Serving People and Building the Capacity* (3573)

Mr. Kambiz Borna, **Mr. Mohamad Reza Rajabi**, **Dr. Ali Mansourian** and **Dr. Majid Hamrah**, Islamic Republic of Iran: *Developing a Quasi-Temporal GIS for Prediction Stop Time in Flood Hazard Modeling* (3585)

Prof. Le Van Trung, Vietnam: *Outline of the Waterlog and Flood Prevention Solutions in Ho Chi Minh City* (3692)

Dr. Tuan Tran Anh and **Prof. Duong Nguyen Dinh**, Vietnam: *Flood Monitoring Using ALOS/PALSAR Imagery* (3720)

Ms. Thu Trinh Thi Hoai, Vietnam: *Monitoring Changes in Land Use* (3675)

TS 3C – Compulsory Purchase and Land Acquisition I

Time: **Tuesday 20 October 2009, 11:00–12:30**

Venue: Room 217, NCC

Commission: 9, 7 and 8

Chair: **Dr. Frances Plimmer**, Chair Elect of FIG Commission 9, United Kingdom

Rapporteur: **Mr. Wafula Nabuto-la**, Chair Elect of FIG Commission 8, Kenya

Prof. Rachelle Alterman, Israel: *Expropriation, Land Readjustment and the Dilemmas about the Public Purpose* (3710)

Ms. Heidi Falkenbach and **Prof. Kauko Viitanen**, Finland: *Compulsory Purchase and Compensation – General Principles* (3659)

Dr. Fabio Pittaluga, Bangladesh: *Land Scarcity and the Imperative of Growth: Challenges for Bangladesh Development* (3584)

Mr. Muhammad Bashir Nuhu, Nigeria: *Development of Appropriate Methodologies for Land Acquisition in Developing Economies: The Case of Nigeria* (3617)

FAO 2A–2E – Working Group Session: Issues of Governance of Tenure of South East Asia to Be Listed in the Regional Assessment – Breakout Session

Time: **Tuesday, 20 October 2009, 11:00–12:30**

Venue: Rooms 212A, 212B, 212 C, 217C, 219C, NCC
Commission: FAO

Free division to groups reflecting roughly peoples' backgrounds:

- Group 1: Land tenure and administration (Moderated by NN)
- Group 2: Natural resources (Moderated by NN)
- Group 3: Civil society, gender, vulnerable groups (Moderated by NN)
- Group 4: Land use planning, urban issues, development (Moderated by NN)
- Group 5: Land economics, markets, valuation (Moderated by NN)

TS 4A – Spatial Data Infrastructures

Time: **Tuesday 20 October 2009, 14:00–15:30**
 Venue: Room 217, NCC
 Commission: 3
 Chair: Dr. **Chrysos Patsiou**, Chair of FIG Commission 3, Greece
 Rapporteur: Mr. **Vo Anh Tuan**, Vietnam

Mr. **Tuan Vo Anh** and Prof. **Xuan Nguyen Truong**, Vietnam: *Proposed Models for and Approaches to a Vietnam National Spatial Data Infrastructure* (3575)

Mr. **Dimo Todorovski**, Macedonia, FYROM: *Spatial Data – The Fundament for the National Spatial Data Infrastructure of the Republic of Macedonia* (3554)

Mr. **Ayansina Ayanlade** and Dr. **Odeyemi T. Odekunle**, Nigeria: *GIS Approach in Assessing Seasonal Rainfall Variability in Guinea Savanna Part of Nigeria* (3397)

Mr. **Nguyen Anh Tuan**, Dr. **Nguyen Van Viet** and Mr. **Ngo Tien Giang**, Vietnam: *Using the Spatial Data of Agroclimatic Elements and Soil to Define the Suitable Lands for Some Industrial Crops in Tay Nguyen Highland of Vietnam* (3689)

TS 4B – GNSS CORS Infrastructure and Standards

Time: **Tuesday 20 October 2009, 14:00–15:30**
 Venue: Room 313, NCC
 Commission: 5 in co-operation with IAG, PCGAP and IGS
 Chair: Dr. **Ruth E. Neilan**, USA
 Rapporteur: Mr. **Matt Higgins**, FIG Vice President, Australia

Ms. **Sharafat Gadimova** and Mr. **Hans Haubold**, Austria: *International Committee on Global Navigation Satellite Systems (IGG): A System of Systems* (3705)

Mr. **Steven Fisher** and Mr. **Robert Kachikyan**, USA: *International Global Navigation Satellite System Service (IGS) Reference Station Guidelines* (3862)

Dr.-Ing. habil. **Volker Schwieger**, Germany, Mr. **Mikael Lilje**, Sweden and Mr. **Rob Sarib**, Australia: *GNSS CORS – Reference Frames and Services* (3642)

Mr. **David Martin**, FIG / ESRF, France: *GNSS CORS Calibration and Testing* (3712)

TS 4C – Compulsory Purchase and Land Acquisition II

Time: **Tuesday 20 October 2009, 14:00–15:30**
 Venue: Room 218, NCC
 Commission: 9, 8, 7
 Chair: Dr. **Isaac Boateng**, United Kingdom
 Rapporteur: Mr. **Wafula Nabutola**, Chair Elect of FIG Commission 8, Kenya

Mr. **Wafula Nabutola**, Kenya: *Compulsory Purchase and Land Acquisition in Kenya* (3716)

Dr. **Junping (Patrick) Liao**, China P. R.: *Land Expropriation in China P. R.* (3717)

Ms. **Linh Dang Thuy**, Vietnam: *Investigation into the Causes of Impediment of Access to Land Information in Land Market – Case Study in Hanoi, Vietnam* (3700)

Mr. **Daniel Weldegebriel Am-baye**, Ethiopia: *Land Valuation for Expropriation in Ethiopia: Valuation Methods and Adequacy of Compensation* (3753)

Mr. **Chu Jianpeng**, China, P. R.: *A Discussion on the Reform of China's Collective Land Expropriation Compensation* (3593)
 Flash presentation.

Mr. **Chu Jianpeng**, China, P. R.: *A Research on the Renewal of State-Owned Land* (3602)
 Flash presentation.

TS 4D – Planning for Environmental Adaptations

Time: **Tuesday 20 October 2009, 14:00–15:30**
 Venue: Room 219, NCC
 Commission: 8
 Chair: Dr. **Diane Dumashie**, Chair of FIG Commission 8, United Kingdom
 Rapporteur: Ms. **Pham Thi Lan**, Vietnam

Dr. **Diane Dumashie**, United Kingdom: *Marine and Coastal Access Bill: Coastal Planning* (3715)

Mr. **Kenny Chan**, Hong Kong SAR, China: *Minimizing Waste to Safe-guard Landfill and Environment* (3563)

Dr. **Isaac Boateng**, United Kingdom: *Spatial Planning and Climate Change Adaptation in Coastal Regions: The Case of Vietnam* (3574)

Ms. **Doan Huong Mai** and Ms. **Pham Thi Lan**, Vietnam: *Ecological Planning for One Mountainous District of Vietnam – Case Study: Kim Boi District, Hoa Binh Province* (3676)

Ms. **Thao Luu Thi**, Vietnam: *Land Used for the Construction of Golf Courses and Related Concerns in Vietnam* (3674)

Mr. **Sohail Sabri**, Dr. **Ahmad Nazri Muhammad Ludin** and Dr. **Ho Chin Siong**, Malaysia: *Spatial Planning in Redevelopment of Kuala Lumpur Inner City Brown-fields* (3731)

TS 4E – Coastal Zone Issues

Time: **Tuesday 20 October 2009, 14:00–15:30**
 Venue: Room 219C, NCC
 Commission: 4, 3 and 6
 Chair: Mr. **Andrew Leyzack**, Chair of FIG Commission 4, Canada
 Rapporteur: Mr. **Gordon Johnston**, United Kingdom
 Dr. **Michael Sutherland**, Canada: *Prototype Marine Cadastre* (3783)

Ms. **Hang Le Minh** and Prof. **Duong Nguyen Dinh**, Vietnam: *Oil Spill Detection and Classification by ALOS PALSAR at Vietnam East Sea* (3684)

Mr. **Tran Dinh Lan** and Mr. **Nguyen Van Thao**, Vietnam: *Remotely Sensed Data Analysis of Landuse for Strategic Environment Assessment of Sea Port Development: Case Study of Haiphong, Vietnam* (3686)

Ms. **Nguyen Kim Anh**, Vietnam: *Research, Database Construction of Oil and Gases Exploitation and Processing Units in the East Sea, and Preliminary Assessment about Potential of Oil Spills in the Vietnam Sea* (3667)

Mr. **Anh Le Van**, Prof. **Duong Nguyen Dinh** and Ms. **Thu Ho Le**, Vietnam: *Sources of Oil Pollution in Vietnam Sea and East Sea* (3670)

TS 4F – Commission 10 I

Time: **Tuesday 20 October 2009, 14:00–15:30**
 Venue: Room 217C, NCC
 Commission: 10
 Chair: Mr. **Andrew Morley**, Chair of FIG Commission 10, United Kingdom
 Rapporteur: Mr. **Robert Sinkner**, Chair Elect of FIG Commission 10, Czech Republic

FAO 3 – Working group session: Issues of governance of tenure of South East Asia to be listed in the Regional Assessment – continued

Time: **Tuesday, 20 October 2009, 14:00–15:30**
 Venue: Room 216, NCC
 Commission: FAO
 Moderator:

Conclusions, preparation of working group report and presentation preparation.

TS 5A – Risk Management Tools
Time: Tuesday 20 October 2009, 16:00–17:30

Venue: Room 217, NCC
 Commission: 3 and 8
 Chair: Dr. **Charalabos Ioannidis**, Greece
 Rapporteur:

Dr. **Krishna Nadimpalli**, Australia: *National Exposure Information System (NEXIS) – A Capability for Evidence Based Disaster Management* (3658)

Mr. **Dheeraj Sharma**, India, Mr. **Pham Viet Hoa**, Mr. **Tran Viet Cuong** and Mr. **Hoang Trung Tuyen**, Vietnam and Mr. **Neeraj Sharma**, India: *Forest Fire Risk Zonation for Jammu District Forest Division Using Remote Sensing and GIS* (3661)

Mr. **Teddy Nakato**, Uganda and Mr. **Ayansina Ayanlade**, Nigeria: *Mapping the Distribution of Tsetse Flies in Eastern Uganda* (3394)

Mr. **Mohammadreza Rajabi**, Dr. **Ali Mansourian** and Mr. **Kambiz Borna**, Islamic Republic of Iran: *A Comparison between Intelligent Algorithms for Solving Site-selection Problems in GIS* (3561)

Dr. **Cam Van Nguyen**, Vietnam: *The Establishment of Maps Supporting Environmental Management in Bacgiang Province* (3664)

Prof. **Florence Galeon**, the Philippines: *Identification of Informal Settlement Clusters in a QuickBird Satellite Image Using Fractal Dimensions* (3629)
 Flash presentation.

TS 5B – GNSS CORS Networks – Case Studies
Time: Tuesday 20 October 2009, 16:00–17:30

Venue: Room 313, NCC
 Commission: FIG Commission 5
 in co-operation with IAG, PCGIAP and IGS
 Chair: Mr. **Mikael Lilje**, Chair Elect of FIG Commission 5, Sweden
 Rapporteur: Mr. **Rob Sarib**, Australia

Mr. **Rudolf W. Matindas** and Mr. **Cecep Subarya**, Indonesia: *Present Status of the Indonesian Permanent GPS Station Network and Development* (3815)
 Case studies by using GNSS CORS template (Invited):

– Mr. **John Dawson**, Australia: *Australian and South Pacific Networks*

– Dr. **Victor Khoo**, Singapore: *Singapore Satellite Positioning Reference Network (SIRENT)*

– Mr. **Simon Kwok**, Hong Kong SAR China: *The Hong Kong Satellite Positioning Reference Station Network (SatRef)*

– Dr. **Azhari bin Mohamed**, Malaysia: *MyRTKNET, Malaysia Representatives from following countries have also been invited: China P. R., Philippines, Thailand and Vietnam.*

TS 5C – Advanced Technology for Cadastre and Land Management
Time: Tuesday 20 October 2009, 16:00–17:30

Venue: Room 218, NCC
 Commission: 7
 Chair:

Rapporteur: Dr. **Doan Thi Xuan Huong**, Vietnam

Mr. **Ian Harper**, Australia and Dr. **Doan Thi Xuan Huong**, Vietnam: *Creating a Survey Data Model and Cadastral Fabric for a Future Land Administration System for Vietnam* (3577)

Ir. **Rik Wouters**, the Netherlands: *Digitizing Large Volumes of Historic Information and Interpretation by OCR* (3603)

Mr. **Canh Dinh Le** and Dr. **Trong Duc Tran**, Vietnam: *The Integration of GIS and Fuzzy Multi-Objective Linear Programming – An Interactive Decision Making Tool in Sustainable Use of Agriculture Land* (3623)

Dr. **Fazel Amiri** and Ms. **Tayebeh Tabatabaie**, Islamic Republic of Iran: *Operational Monitoring of Vegetative Cover by Remote Sensing in Semi-arid Lands of Iran* (3706)

TS 5D – Monitoring Using Vision Technologies
Time: Tuesday 20 October 2009, 16:00–17:30

Venue: Room 217C, NCC
 Commission: 6
 Chair: Prof. **Alojz Kopacik**, Chair of FIG Commission 6, Slovakia
 Rapporteur: Mr. **Tran Trung Anh**, Vietnam

Dr. **Susumu Hattori**, Mr. **Yoshiyuki Ohnishi** and Mr. **Izuru Kuronuma**, Japan: *Deformation Monitoring of Slopes by Vision Metrology with a Simulator for Network Design and the Hypothetical Test* (3560)

Mr. **Rishiraj Dutta**, the Netherlands, Mr. **Rajib Mohan Bhagat** and Mr. **Alka Singh**, India: *Monitoring Tea Plantations in India Using Remote Sensing Approaches* (3562)

Mr. **Ba Duy Nguyen** and Mr. **Dinh Ho Tong Minh**, Vietnam, Dr. **Francesco Sarti** and Dr. **Steffen Dransfeld**, Italy and Dr. **Ramon Hanssen**, the Netherlands: *Measuring Land Subsidence in Ha Noi City by Means of Radar Interferometry Technique* (3678)

Mr. **Tran Trung Anh**, Vietnam: *Epipolar Resampling of Stereo Image Base on Airbase in the Digital Photogrammetry* (3685)

TS 5E – Commission 10 II
Time: Tuesday 20 October 2009, 16:00–17:30

Venue: Room 219, NCC
 Commission: 10
 Chair: Mr. **Robert Sinkner**, Chair Elect of FIG Commission 10, Czech Republic
 Rapporteur: Mr. **Andrew Morley**, Chair of FIG Commission 10, United Kingdom

Commission 9 Roundtable on Good Practice in Compulsory Purchase and Compensation
Time: Tuesday 20 October 2009, 16:00–17:30

Venue: Room 219C, NCC
 Commission: 9
 Chair: Prof. **Kauko Viitanen**, Chair of FIG Commission 9

Open Forum for participants interested in Good Practice in Compulsory Purchase and Compensation (FIG Commission 9WG 1).

FAO 4 – Out of Conference Plenary
Time: Tuesday, 20 October 2009, 16:00–17:30

Venue: Room 216, NCC
 Commission: FAO
 Moderator:

Important regional initiative/approach/success in the field of governance or policy or institutional development.

Thilak Hewasam: Governance Aspects in an Urban Resettlement Program

Kirsten Ewers: Governance in Communal Land Tenure Systems

N.N.: Civil Society Participation and Land Governance

Discussion

Introduction to the Breakout workshop on Wednesday (FAO Officer/Moderator)



Wednesday 21 October 2009

Plenary Session 3 – Capacity Building

Time: **Wednesday 21 October 2009, 9:00–10:30**

Venue: Room 313, NCC
Chair: Mr. **Iain Greenway**, FIG Vice President, United Kingdom

Prof. **Holger Magel**, FIG Honorary President, Technical University of Munich, Germany: *Capacity Building in Land Management: The Need for Global Academic Partnership* (3612)

Prof. **Dang Nam Chinh**, Dean of Faculty of Surveying and Mapping, Hanoi University of Mining and Geology and Prof. **Vo Chi My**, Vice-President, Vietnam Association of Geodesy, Cartography and Remote Sensing, Vietnam: *Innovation in Surveying and Mapping Training for an Integrated World* (3764)

Mr. **Teo Chee Hai**, FIG Vice President, Malaysia: *Building the Capacity – Professionalism and Ethics* (3785)

FAO 5 – Working Group Feedback Workshop: Issues and Actions to be Recommended in the Regional Assessment
Time: **Wednesday, 21 October 2009, 09:00–10:30**
Venue: Room 216, NCC
Commission: FAO

Moderated discussion, working group panellists.

Wednesday 20 October 2009 11:00–12:30

TS 6A – New Challenges in Land Administration

Time: **Wednesday 21 October 2009, 11:00–12:30**

Venue: Room 313, NCC
Commission: 7
Chair: Mr. **András Osskó**, Chair of FIG Commission 7, Hungary
Rapporteur: Mr. **Godfried Barnasconi** and Prof. **Paul van der Molen**, the Netherlands: *The Dutch Kadaster in Times of Financial Crisis* (3594)

Ms. **Gertrude Pieper Espada**, Netherlands: *From Low-Cost to Open Source: Choices and Challenges for the Cambodian Land Registration System* (3550)

Mr. **John Blair**, Canada: *Land Management and Land Registration in the Tsunami Recovery Program, Aceh, Indonesia* (3618)

Prof. **Paul van der Molen**, the Netherlands: *The Evolving Function of Land Administration in Society – Capitalizing on Investments in a Digital Land Register and Cadastre in the Netherlands* (3598)

Mr. **John Dawson**, Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP), Australia: *Forum Summary and APREF Proposal* (3782)

TS 6C – Capacity Building

Time: **Wednesday 21 October 2009, 11:00–12:30**

Venue: Room 217C, NCC
Commission: 2
Chair: Dr. **Steven Frank**, Chair Elect of FIG Commission 2, USA
Rapporteur: Dr. **Bela Markus**, Chair of FIG Commission 2, Hungary

Mr. **Christian Paresi**, the Netherlands and Dr. **Tuan Tran Anh**, Vietnam: *Worldwide Network of Academic Partners: a Mechanism for Improving Capacity Building in Land Administration* (3582)

Ms. **Kari Strande**, Norway: *Bringing People Together – Exchange Program in Geomatics between Vietnam, Laos and Norway* (3597)

Mr. **Dimo Todorovski** and Mr. **Vasil Mishkovski**, Macedonia, FYROM: *Building the Capacities in the Cadastral and Land Registration Organizations at Individual Level in Developing and Transition Countries* (3553)

Er. **Narayan Bhattarai**, Nepal: *Geomatics Engineering Education in Kathmandu University: Issues and Challenges* (3541)

Mr. **Keshav Sharma**, Nepal: *Geomatics Education: A Rising Sector for Value Addition in HRD in Nepal* (3581)

TS 6D – Engineering Application of GNSS

Time: **Wednesday 21 October 2009, 11:00–12:30**

Venue: Room 218, NCC
Commission: 6 and 5
Chair: Prof. **Dang Nam Chinh**, Vietnam
Rapporteur: Prof. **Alojz Kopacik**, Chair of FIG Commission 6, Slovakia

Dr. **Gethin Wyn Roberts**, Mr. **Lukasz Kosma Bonenberg** and Mr. **Craig M. Hancock**, United Kingdom: *Integrating Localities and GNSS for Engineering Works* (3589)

Prof. **Christiana Mitsakaki**, Ms. **Aggeliki Marinou**, Mr. **Xanthos Papanikolaou** and Ms. **Kalliope Papazissi**, Greece: *Evaluating Large Volume GPS Data for Deformation Studies* (3605)

Mr. **Joël van Cranenbroeck**, Belgium, Mr. **Doug Hayes**, United Arab Emirates, Mr. **Soang Hun Oh**, Kuwait and Mr. **Mohammed Haider**, United Arab Emirates: *Core Wall Control Survey – The State of the Art* (3613)

Mr. **Matthew Oliver Ralph L. Dimmal** and Mr. **Louie P. Balicanta**, the Philippines: *Comparative Analysis of GPS Azimuth and Astronomical Derived Azimuth for the Establishment of Project Controls* (3627)

TS 6E – Economic Benefits of Hydrography

Time: **Wednesday 21 October 2009, 11:00–12:30**

Venue: Room 219, NCC
Commission: 4
Chair: Dr. **Michael Sutherland**, Chair Elect of FIG Commission 4, Canada
Rapporteur: Mr. **David Neale**, Trinidad and Tobago

CDR **Brian Douglas Cannon**, USA and CDRE **Rod Nairn**, Australia: *Economic Impact of Hydrographic Surveys* (3633)

Captain **Hugo Gorziglia**, IHB Director, IHO: *Why a National Hydrographic Service?* (3746)
This paper will be presented by **Gordon Johnston**.

Mr. **Gordon Johnston**, United Kingdom: *The Economic Benefits of Hydrography* (3640)
Flash presentation.

Mr. **Andrew Leyzack**, Canada: *Economic Benefits of Hydrography in the Canadian Arctic – A Case Study* (3655)
Flash presentation.

Dr. **David Dodd**, Canada, Mr. **Gordon Johnston**, United Kingdom and Mr. **Andrew Hoggarth**, Canada: *The Economic Impact of Appropriate Education in Hydrography* (3649)

Mr. **Cyril Mbeu Ache**, Cameroon and Dr. **Victor Abbott**, United Kingdom: *The Cost-benefit of Charting Cameroon Waters* (3723)

TS 6F – Mapping, Aerial Survey and Remote Sensing I

Time: **Wednesday 21 October 2009, 11:00–12:30**

Venue: Room 219C, NCC
Commission: 3, 5, 6
Chair: Dr. **Van Anh Tran**, Vietnam
Rapporteur: Mr. **Giang Huong Nguyen**, Vietnam

Dr. **Hasanuddin Z. Abidin**, Mr. **Heri Andreas**, Mr. **Irwan Gumilar** and Mr. **Mohammad Gamal**, Indonesia, Prof. **Yoichi Fukuda** and Dr. **T. Deguchi**, Japan: *Land Subsidence and Urban Development in Jakarta, Indonesia* (3491)

Prof. **Vo Chi My** and Ms. **Pham Viet Hoa**, Vietnam: *The Effect of Mining Exploit for Environment in Quang Ninh Province* (3721)

Ms. **Ha Le Thi Thu** and Ms. **Giang Tran Thi Huong**, Vietnam: *Research the Impact of Expansion Process of Mining Area to the Change of Vegetation Cover by Using Remote Sensing Data and GIS* (3680)

Mr. **Anh Luu The**, Vietnam: *Regional Scale Soil Erosion Modelling for Conservation Planning Using Remote Sensing and GIS Techniques – A Case Study in the Centre of Himalayan Ranges* (3671)

Dr. **Van Anh Tran**, Vietnam: *Integrating of Microwave Remote Sensing and WebGIS in Flooding Detection and Web-mapping* (3698)

Wednesday 21 October 2009 14:00–15:30

Moderated discussion (five working group panellists)

TS 7A – Economy and Land Administration

Time: **Wednesday 21 October 2009, 14:00–15:30**

Venue: Room 313, NCC

Chair: **Ms. Ann-Katrin Myles**, Sweden

Rapporteur: **Mr. Andrés Oskó**, Hungary

Questions on Sustainable Land Administration (3572)

Surv. **Gertrude Nnanjar Njar** and **Dr. Olusola Atilola**, Nigeria: Geospatial Information, Land Administration Reform and Sustainability in Developing Economies: The Nigerian Experience (3599)

Mr. Manohar Velpuri, Switzerland: Life Cycle Assessment and Cadastral Administration for a Better Environmental Sustainability (3701)

Ms. Zhao Daihong and **Mr. Zong Xiang Zha**, China P. R.: China's National Cadaster Information System (3718)

Dr. Quyen Nguyen Hanh, **Dr. Y. Tran Minh**, **Ms. Hoa Pham Viet**, **Ms. Giang Nguyen Vu**, **Mr. Dat Dinh Ngoc**, **Mr. Son Tong Si**, **Mr. Toan Le Quang** and **Mr. Hai Nguyen Phuc**, Vietnam: Design of Surveying Methodology for Construction Subsidence Monitoring Using GPS Technology (3681)

Mr. Neil Ashcroft and **Mr. Graham Barber**, Australia: Using a Real Time CORS – Gold Coast CORS Network Operations (3614)

Mr. Mohd Hafiz Yahya, Assoc. Prof. **Md Nor Sr Dr. Kamarudin** and **Ms. Zuhaidah Nordin**, Malaysia: The Impact of Monsoon Circulations on the Performance of Space-based Radio Navigation Satellites for Surveying Applications (3647)

Dr. Quyen Nguyen Hanh, **Dr. Y. Tran Minh**, **Ms. Hoa Pham Viet**, **Ms. Giang Nguyen Vu**, **Mr. Dat Dinh Ngoc**, **Mr. Son Tong Si**, **Mr. Toan Le Quang** and **Mr. Hai Nguyen Phuc**, Vietnam: Design of Surveying Methodology for Construction Subsidence Monitoring Using GPS Technology (3681)

Dr. Steven Frank, USA: Proposed Commission 2 Work Plan (2011–2014) (3626)

Dr. Joël van Cranenbroeck, Belgium: A GNSS Network Is a Sustainable Positioning Infrastructure for Supporting Land Management Operations (3614)

Mr. Peter Tarsoly, Hungary: Digital Topographical Maps – Positional Accuracy (3639)

Mr. Harintaka, **Dr. Subaryono**, Prof. **Adhi Susanto**, and **Dr. Hartono**, Indonesia: Assessment of Low Cost Small Format Aerial Photogrammetry for Cadastral Mapping (Case Study in Klanten Regency, Central Java, Indonesia) (3586)

Ms. Nguyen Mai Phuong and Prof. **Nguyen Dinh Duong**, Vietnam: Some Discussions on Noise Filtering Technique of Microwave Remote Sensing Data for Oil Spill Detection at Sea (3679)

Ms. Hanh Tran Hong and **Dr. Tuan Vu Anh**, Vietnam: Combination of Microwave and Optical Remote Sensing in Land Cover Mapping (3719)

Mr. Vinh Pham Quang and **Mr. Anh Luu The**, Vietnam: Integration of Remotely Sensed Data with GIS Technology for Classification of One Crop of Rice (3699)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Quang Minh Nguyen and **Mr. Van Duong Do**, Vietnam and Prof. **Peter M. Atkinson** and **Dr. Hugh G. Lewis**, United Kingdom: Downscaling Multispectral Imagery Based on HNN Using Forward Model (3569)

Mr. Sergio C. Abad II and Assoc. Prof. **Florence Galeon**, the Philippines: Rapid and Low Cost Digital Elevation Model (DEM) Production of the Guisangon Southern Leyte Landslide Area Using Close Range Terrestrial Photogrammetry (3630)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

TS 7C – Roundtable on Professional Education

Time: **Wednesday 21 October 2009, 14:00–15:30**

Venue: Room 217C, NCC

Commission: 2

Chair: **Mr. Christian Paresi**, the Netherlands

Rapporteur: **Dr. György Busics**, Hungary

Dr. Steven Frank, USA: Proposed Commission 2 Work Plan (2011–2014) (3626)

Dr. Joël van Cranenbroeck, Belgium: A GNSS Network Is a Sustainable Positioning Infrastructure for Supporting Land Management Operations (3614)

Mr. Peter Tarsoly, Hungary: Digital Topographical Maps – Positional Accuracy (3639)

Mr. Harintaka, **Dr. Subaryono**, Prof. **Adhi Susanto**, and **Dr. Hartono**, Indonesia: Assessment of Low Cost Small Format Aerial Photogrammetry for Cadastral Mapping (Case Study in Klanten Regency, Central Java, Indonesia) (3586)

Ms. Nguyen Mai Phuong and Prof. **Nguyen Dinh Duong**, Vietnam: Some Discussions on Noise Filtering Technique of Microwave Remote Sensing Data for Oil Spill Detection at Sea (3679)

Ms. Hanh Tran Hong and **Dr. Tuan Vu Anh**, Vietnam: Combination of Microwave and Optical Remote Sensing in Land Cover Mapping (3719)

Mr. Vinh Pham Quang and **Mr. Anh Luu The**, Vietnam: Integration of Remotely Sensed Data with GIS Technology for Classification of One Crop of Rice (3699)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

TS 7D – Mapping, Aerial Survey and Remote Sensing II

Time: **Wednesday 21 October 2009, 14:00–15:30**

Venue: Room 218, NCC

Commission: 6, 5

Chair: **Prof. Le Van Trung**, Vietnam

Rapporteur: **Mr. Ho Tong Dinh Minh**, Vietnam

Prof. Xiao Li Ding, **Mr. G. C. Feng**, **Mr. L. Zhang** and **Mr. M. Jiang**, Hong Kong SAR, China: INSAR: Current Capabilities and Limitations as a Surveying Technology (3551)

Mr. Davood Akbari, Islamic Republic of Iran: Target Detection Improvement in Hyperspectral Images (3543)

Dr. Quang Minh Nguyen and **Mr. Van Duong Do**, Vietnam and Prof. **Peter M. Atkinson** and **Dr. Hugh G. Lewis**, United Kingdom: Downscaling Multispectral Imagery Based on HNN Using Forward Model (3569)

Mr. Sergio C. Abad II and Assoc. Prof. **Florence Galeon**, the Philippines: Rapid and Low Cost Digital Elevation Model (DEM) Production of the Guisangon Southern Leyte Landslide Area Using Close Range Terrestrial Photogrammetry (3630)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

Dr. Ha Minh Hoa and **Dr. Nguyen Ngoc Lau**, Vietnam: Tidal Effects to Absolute Gravity Measurements on the Off-shore Islands (3752)

ATLAS PARASOUND

Sub-bottom profiling when handling of towed profilers becomes too risky

September 2008, the latest PARASOUND of the new third generation has been installed on the German research vessel SONNE.

Now, all German oceanographic research vessels utilise a PARASOUND of the latest generation.

Main picture shows crew on deck RV SONNE during high seas. The hull mounted PARASOUND is still operational. Can you imagine handling a towed sub-bottom profiler under such conditions? Picture below shows data collected with the new SONNE PARASOUND during its acceptance cruise in the Malacca Strait in 80 m water depth with 45 m sediment penetration.

We pay the photographer and the crew our respect and express our thanks for catching this remarkable picture. We like to thank RF Forschungsschiffahrt for the provision of the photograph.

The ATLAS PARASOUND Technology

Hull mounted sub-bottom profiler

- ✧ water depths from 10 to 11,000 m
- ✧ bottom penetration up to 200 m and deeper
- ✧ parametric principle with 0.5 to 6.0 kHz
- ✧ 5° beamwidth
- ✧ less than 15 cm sediment resolution

With new features of the latest generation

- ✧ incidence angle control
- ✧ equidistant profiling with multi-ping
- ✧ multi-beam profiling and bathymetry
- ✧ frequency modulated pulses

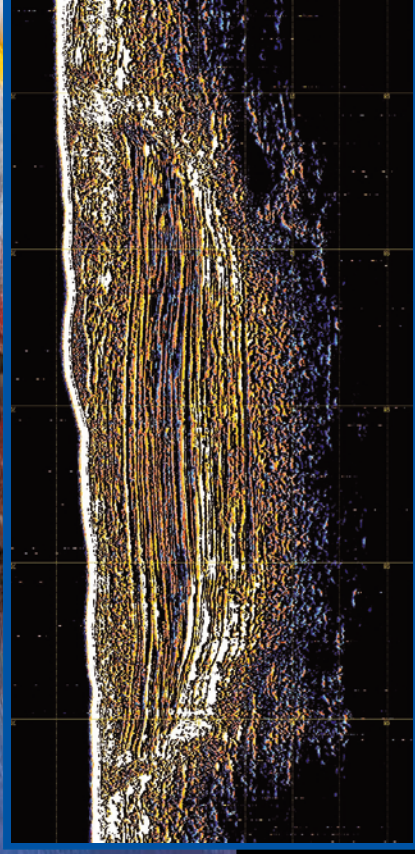
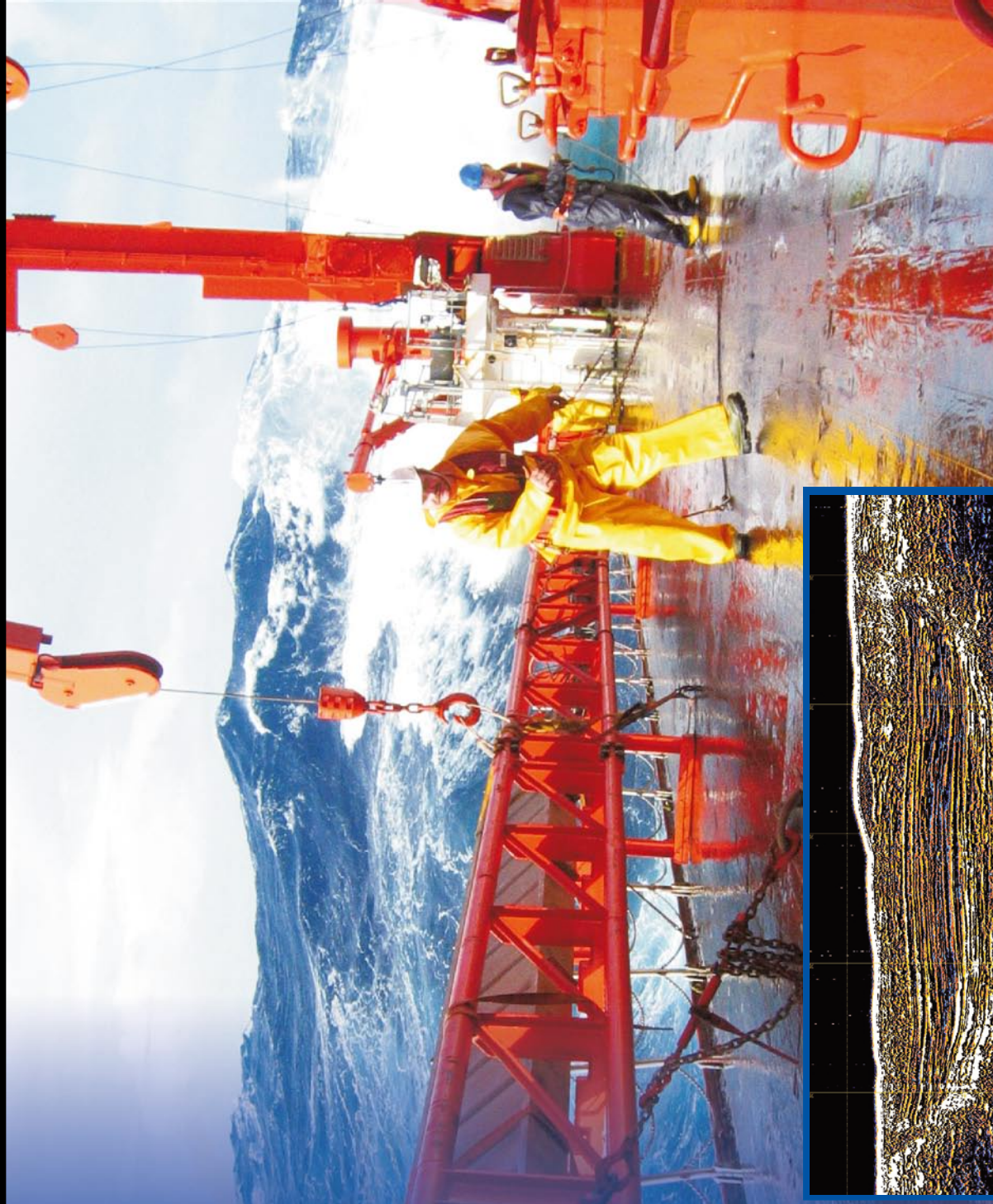
ATLAS HYDROGRAPHIC GmbH

Kurfürstenallee 130, 28211 Bremen, Germany

t: +49 421 457 2259 f: +49 421 457 3449

sales-hydro@atlas-elektronik.com

www.atlashydro.com



CONTACTS

International Federation of Surveyors (FIG)

Kalvebod Brygge 31-33
DK-1780 Copenhagen V
Denmark
Tel.: +45 3886 1081
Fax: +45 3886 0252
E-mail: fig@fig.net
Contact person: John Neel, General Manager
Web site: www.fig.net

The Vietnam Association of Geodesy, Cartography and Remote Sensing (VGCR)

Room 302, Block 5, B26, Nguyen Hong St.
Dong Da Dist
Ha Noi
VIET NAM
Tel. + 84 4 293 6975
Fax: + 84 4 826 7398
E-mail: vgcr.association@gmail.com
Web site: <http://www.vgcr.org.vn>

Conference web site

www.fig.net/vietnam

Conference proceedings web site

www.fig.net/pub/vietnam

Forthcoming events

XXIV FIG International Congress and XXXIII General Assembly

Facing the Challenges – Building the Capacity
Sydney, Australia, 11–16 April 2010
www.fig2010.com

SPONSORS

Platinum:



Gold:



Silver:



UN HABITAT



PARTNERS

www.fig2010.com

The XXIV FIG International Congress 2010



11 - 16 April 2010

Sydney Convention & Exhibition Centre
Sydney, Australia

Facing the Challenges
– Building the Capacity



www.sssi.org.au



www.fig.net

Registrations are open at www.fig2010.com