FIG Working Week 2011 & 6th National Congress of ONIGT
– Bridging the Gap Between Cultures

Marrakech, Morocco
May 18–22, 2011

Under patronage of His Majesty King Mohammed VI

TECHNICAL PROGRAMME
### Programme at a Glance

<table>
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<tr>
<th>Time</th>
<th>Tuesday 17 May</th>
<th>Wednesday 18 May</th>
<th>Thursday 19 May</th>
<th>Friday 20 May</th>
<th>Saturday 21 May</th>
<th>Sunday 22 May</th>
<th>Time</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Registration 13:00–17:30</td>
<td>Registration 8:00–17:30</td>
<td>Plenary Session I</td>
<td>Plenary Session II</td>
<td>Plenary Session III</td>
<td>Registration 8:00–16:00</td>
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<td>9:00</td>
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<td>Presidents’ Meeting</td>
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<td></td>
<td>Farewell Reception</td>
<td>17:00</td>
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<tr>
<td>18:00</td>
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<td>Opening Ceremony (17:45–18:45)</td>
<td>AUS Meeting</td>
<td>Closing Ceremony of the 6th National Congress of ONIGT</td>
<td>China Forum</td>
<td>18:00</td>
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<td>19:00</td>
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<tr>
<td>20:00</td>
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<td>Welcome Reception</td>
<td>Moroccan Evening &amp; FIG Foundation Dinner</td>
<td>Free / Commission Dinners</td>
<td>Conference Dinner</td>
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<td>20:00</td>
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</table>

### Rooms for the Commission Annual Meetings:

**18 May:**
- Comm 1 – Karam 5
- Comm 2 – Comm. MR 1
- Comm 3 – Karam 1
- Comm 4 – Reda 4
- Comm 5 – Karam 2

**19–21 May:**
- Comm. MR 1 – MR 5 in the exhibition area

### Technical Tours:

- **TT 1 – New City of Tamnsourt**
  - Thursday 19 May, 14:30–16:30
- **TT 2 – Hydraulic Basin Agency of Tensift**
  - Thursday 19 May, 14:30–16:30
- **TT 3 – Urban Agency of Management and Building for Tensift Haouz**
  - Friday 20 May, 10:30–12:30
- **TT 4, TT 8 and TT 9 – Marrakech Cadastre and Land Conservation Facility**
  - TT 8 Thursday 19 May, 14:30–16:30
  - TT 4 Friday 20 May, 10:30–12:30
  - TT 9 Friday 20 May, 15:00–17:00
- **TT 5 – RADEEMA: Autonomous Bureau of Management and Water and Electricity-Marrakech**
  - Friday 20 May, 15:00–17:00
- **TT 6 – The Regional Office of Agricultural Development of Haouz**
  - Friday 20 May, 15:00–17:00
- **TT 7 – Regional Directorate of Water and Forest**
  - Friday 20 May, 15:00–17:00

### FIG Office:
- ASNI 1
- ONIGT Office: AGDAL 1
- FIG President: Fes 1A
- ONIGT President: Fes 2A

### Speakers Preparation Room:
- Reda 3
# The FIG Working Week 2011 & 6th National Congress of ONIGT

## Technical Programme

### Monday, 16 May 2011

<table>
<thead>
<tr>
<th>Event</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>FIG Council Meeting</strong></td>
<td>Monday, 16 May 09:00–17:00  Venue: Fes 2  Commission: FIG Council members  – By invitation only</td>
</tr>
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### Tuesday, 17 May 2011

<table>
<thead>
<tr>
<th>Event</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Fédération des Géomètres Francophones (FGF) General Assembly</strong></td>
<td>Tuesday, 17 May 09:00–13:00  Venue: Fes 1  Commission: FGF</td>
</tr>
<tr>
<td><strong>FIG Commission Officers Meeting – ACCO</strong></td>
<td>Tuesday, 17 May 09:00–17:00  Venue: Fes 2  Commission: FIG Commission chairs  – By invitation only</td>
</tr>
<tr>
<td><strong>Trimble and Esri Pre-conference Workshop</strong></td>
<td>Tuesday, 17 May 14:00–18:00  Venue: Fes 1, Palais des Congrès  Commission: Esri and Trimble</td>
</tr>
<tr>
<td><strong>ONIGT Dinner</strong></td>
<td>Tuesday, 17 May 20:00–23:00  Venue: Dar Rhizlane, Jnane El Harti, Quartier Hivernage, Marrakech, <a href="http://www.dar-rhizlane.com">www.dar-rhizlane.com</a>  – By invitation only</td>
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### Wednesday, 18 May 2011

<table>
<thead>
<tr>
<th>Event</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>FIG General Assembly I</strong></td>
<td>Wednesday, 18 May 09:00–12:00  Venue: Salle Mazagan, Ryad Mogador Hotel, Ave. Mohammed VI, Marrakech  Commission: FIG members  – FIG members  – Open for observers</td>
</tr>
<tr>
<td><strong>FIG General Assembly I – Continues</strong></td>
<td>Wednesday, 18 May 13:00–15:00  Venue: Salle Mazagan, Ryad Mogador Hotel, Ave. Mohammed VI, Marrakech  – General Assembly continues  – FIG members  – Open for observers</td>
</tr>
<tr>
<td><strong>Pre-conference Workshop – IAV-ONIGT-Leica</strong></td>
<td>Wednesday, 18 May 13:00–18:30  Venue: Fes 1  Commission: ONIGT members</td>
</tr>
<tr>
<td><strong>Annual Meetings of FIG Commissions</strong></td>
<td>Wednesday, 18 May 15:00–17:00  Venue: Palais des Congrès  Commission: Commission delegates  – Comm. 1 – Karam 5  – Comm. 2 – Comm. MR1  – Comm. 3 – Karam 1  – Comm. 4 – Reda 4  – Comm. 5 – Karam 2  – Comm. 6 – Reda 5  – Comm. 7 – Fes 2  – Comm. 8 – Karam 3  – Comm. 9 – Karam 4  – Comm. 10 – Reda 2</td>
</tr>
<tr>
<td><strong>Mediterranean Union of Surveyors – UMG General Assembly</strong></td>
<td>Wednesday, 18 May 16:00–19:00  Venue: Salle Mazagan, Ryad Mogador Hotel, Ave Mohammed VI Marrakech  Commission: UMG members  – By invitation  – Open for observers</td>
</tr>
<tr>
<td><strong>FIG Foundation Meeting</strong></td>
<td>Wednesday, 18 May 17:00–19:00  Venue: Commission MR5  Commission: FIG Foundation  – By invitation only</td>
</tr>
<tr>
<td><strong>Welcome Reception</strong></td>
<td>Wednesday, 18 May 19:30–21:00  Venue: Mansour Eddahbi Hotel  – Open for all participants</td>
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</table>
NOTE: Simultaneous interpretation is provided in sessions in rooms Salle des Ministres and Fes 1.
Thursday, 19 May 2011 11:00–12:30 (continued)

TS01F – Young Surveying Professionals and Students
Thursday, 19 May 11:00–12:30
Venue: Karam 4
Commission: YSN and 1
Chair: Ms. Kate Fairlie, Chair of FIG Young Surveyors Network
Rapporteur: Ms. Cecilia Lindén, Sweden

Fausto Savoldi (Italy): A Permanent Training for the Italian Surveyor and a New Path towards an Effective School System for the Youth (5395)

Cecilia Lindén (Sweden): Age Structural Survey within the Surveying Profession 2011–2014 (5268)

Kate Fairlie and Chris McAllister (Australia): Spatially Smart Wine – Getting Young Surveyors to Network in the Vineyard! And Other Australian Young Surveyor Activities (5086)

Pierre Tessier and Marie-Renée C.-Lavoie (Canada): A Portrait of Land Surveyor in Quebec – Portrait de l’arpenteur-géomètre au Québec (5241)

TS01G – Investment, Finance and Real Estate Management
Thursday, 19 May 11:00–12:30
Venue: Karam 5
Commission: 9
Chair: Mr. Yaacoub Saade, Lebanon
Rapporteur: Dr. Frances Plimmer, Chair, FIG Commission 9


Manohar Velpuri (Hong Kong SAR, China): Cadastral Management Information System for Better Land Valuation in Emerging Economies (5428)


Risto Peltola (Finland): Leasehold Discount in Dwelling Prices: A Neglected View to the Challenges Facing the Leasehold Institution (5260)

Felician Komu (Tanzania): Harmonization of Valuation Education amidst Proliferation of Specializations in Real Estate Disciplines (5182)

TS01H – Curriculum and Core Survey Knowledge I
Thursday, 19 May 11:00–12:30
Venue: Reda 2
Commission: 2
Chair: Prof. Bela Markus, Hungary
Rapporteur: Prof. Irina Fartukova, Russian Federation

El Hassane Semlali (Morocco): Professional Aspects and Specificities of the Geomatic Sciences and Surveying Engineering Education in Morocco – A Unique Experience (4925)

Fabian Thiel (Cambodia): Education, Property Valuation and Taxation Capacity in Developing Countries: The Example of Cambodia (4806)

Alain De Wulf, Timothy Nuttens, Cornelis Stal and Philippe De Maeyer (Belgium): Geomatics Education in Belgium: 2011 Program Reformation at Belgium Universities (5265)

Olga Godoy and Orlando Patiño (Colombia): Surveying and Geomatic in Colombia: A Comparative Study of the Academic Programs of Engineering and Technology (4856)

Nicolae Dima, Ioel Veres, Larisa Filip, Adrian T.G. Radulescu and Virgil M.G. Radulescu (Romania): Academic Mining Surveying Education in Romania, 60 Years of History (4793)

TS01I – Spatial Information Applications I
Thursday, 19 May 11:00–12:30
Venue: Reda 4
Commission: 3
Chair: Mr. Ali Oufrid, Morocco
Rapporteur: Mr. Robert W. Foster, USA

Hicham Hajji, Moha El Ayachi, Mustpha Aboulbaroudi and Jalil Griger (Morocco): An Overview on Constraints Development in Web Mapping (5240)

Guanfu Song (China, PR): Service GIS, New Concept for Geographic Information Sharing (5425)

Khalid Sbai, Idriss Elachhab, Youssef Saban and Mina Amharref (Morocco): The GIS Solutions and Services on the Web (5300)

Rachid A. Barry, Abdelkader El Garouani and Abderrahim Lahrach (Morocco): GIS Support in Urban Management – Application in Fes in Morocco (5322)

This is a flash presentation.

TS01J – Land Registration
Thursday, 19 May 11:00–12:30
Venue: Reda 5
Commission: 7 and 3
Chair: Mr. Douichi Choukri, Morocco
Rapporteur: Mr. Lars Aastrand, Sweden

Marc Vanderschueren (Belgium): Identification of the Real Estate in the Deeds Submitted to the Hypothecary Formality – Identification des biens immobiliers dans les actes soumis à la formalité hypothécaire (5054)

Gabriel Arancibia (Canada): Une architecture géospatiale pour le registre des terres * Geospatial Architecture for the Cree/Naskapi Land Registry System as an Economic Development Mechanism for Canadian Aboriginal People (4906)

Agnes Addai, Joseph Owusu, Daniel Asenso-Gyamobi and Yaw Opoku-Gyamfi (Ghana): Systematic Land Title Registration: A Dynamic Approach to Land Registration (4966)

Daragh O’Brien (Ireland): To Gauge an Understanding of How Boundaries Are Perceived in Ireland by Landowners (4812)

Marcin Karabin (Poland): Registration of the Premises in 2D-cadastral System in Poland (4818)
This is a peer reviewed paper.
TS02G – 3D Cadastre and Case Studies
Thursday, 19 May 14:00–15:30
Venue: Karam 5
Commission: 7 and 3
Chair: Dr. Peter van Oosterom, Netherlands
Rapporteur: Prof. Kenza Ait Elkadi, Morocco

Ali Asad Abdul-Rahman, Chee Hua Teng (Malaysia) and Peter van Oosterom (Netherlands): Embedding 3D into Multipurpose Cadastre (5223)

Alien Aien, Mohsen Kanantari and Ian Williamson (Australia): Aspects of 3D Cadastre – A Case Study in Victoria (4935)

This is a peer reviewed paper.

Vuttinan Utenas (Thailand): The Feasibility of 3D Cadastre in Thailand (4787)

Fathi Doner, Osman Demir and Cemal Biyik (Turkey): Need for Three-Dimensional Cadastre in Turkey (4824)

Alessandro Dalmasso (Italy): Procedures for the Cadastral Registration of a New Building and Its 3D Representation (5074)

TS02H – Curriculum and Core Survey Knowledge II
Thursday, 19 May 14:00–15:30
Venue: Reda 2
Commission: 2
Chair: Prof. Mohamed Ettarid, Morocco
Rapporteur: Prof. Steven Frank, Chair, FIG Commission 2

Ignacio Menéndez Pidal and Pedro J. Cavero Abad (Spain): Integration of Cooperation for Development in Survey Engineering Curricula at the European Higher Education Area (EHEA) Framework (5064)

This is a peer reviewed paper.

Vladimir Golubev, Irina Farukova and Aleksander Chibunichev (Russia): Education in Land Management at Moscow State University of Geodesy and Cartography and the Bologna Process (5161)

Mohamed Bougouss (Canada): The Challenge of Forming a Qualified Labor Responding to a Diversified Job Market in a Perpetually Technologically Changing and Globalized Environment: the Limoiolou College’s Model (4954)

Stella Soni, Kufre Sunday and Chioma Azalam (Nigeria): Effective Educational Practice in Survey Profession in Nigeria (5021)

Pal Nikoli (Albania) and Bashkim Idrizi (Macedonia, FYROM): GIS Education in Albania (5207)

TS02I – Spatial Information Applications II
Thursday, 19 May 14:00–15:30
Venue: Reda 4
Commission: 3
Chair: Prof. Hartmut Mueller, Germany
Rapporteur: Prof. El Hassan Benaim, Morocco

Débora Lamberty, Mauricio Roberto Veronez and Marcelo Zagonel de Oliveira (Brazil): The Use of Geographic Information System to the Integration and Management of Historical Information: A Case Study in Jesuit-Guarani Reduction in Brazil (5088)

Terwase Youngu, Olalekan Isioye and Moses Emakoji (Nigeria): The Management of Information for Control Points within Zaria, Kaduna State Nigeria Using GIS (4919)

Ali Nashwan, Mohamed Ait Belaid and Sabah Al-Jenaid (Bahrain): Designing a Spatial Database to Facilitate Road Maintenance Tasks (5337)

Barkan Fatima (Morocco): The Permanent System of Migration Observation and Data Collecting toward an e-Government Project in Morocco (5430)

Paola Ronzino (Italy): GIS for Land Management: an Overview in Italy (5076)

This is a flash presentation.

Maisam Toosi, Ali Makki, Abdul Reza Meshghini, Mohsen Ojaghloo and Reza Akbari (Iran): Resource Management by Using GIS Functionalities (5176)

This is a flash presentation.

TS02J – Organisational and Legislative Issues
Thursday, 19 May 14:00–15:30
Venue: Reda 5
Commission: 1 and 7
Chair: Mr. Pierre Tessier, Canada
Rapporteur: Mme Afane Rabia, Morocco

Jean-Paul Miserez (Switzerland): Quelle synergie entre topographes et géomètres? (5237)

Jim Mason (United Kingdom): Promoting Ethical Improvement in the Built Environment (4962)

Tony Burns (Australia) and Suleiman Dabbas (Serbia): Developing Effective Policy and Planning in Yemen (5232)

Lani Roux and Michael Barry (Canada): Application of Grounded Theory in the Study of Land Registration Systems Usage (4847)

Brian J Coutts (New Zealand): Regulation and Discipline for Cadastral Surveyors: A Case Study in the Australasian Reciprocal Regioning (4946)


Daniel Parent (Canada): Land Surveyors and Certificate of Location (5171)
**TS03A – Towards Cadastre 2034 – A Panel Discussion with International Experts**

Thursday, 19 May 16:00 – 17:30
Venue: Salle des Ministres
Commission: 7, 3 and GIM
Chair: Mr. Christian Lemmen, Netherlands
Rapporteur: Mr. Mohamed Rabah, Algeria

Cadastre 2014, an influential publication, produced between 94 and 98 by FIG Commission 7, the March 2010) based on a paper presented by Rohan Williamson (Canada) and 98 by FIG Commission 7, the March 2010) based on a paper presented by Rohan Williamson (Canada) and 98 by FIG Commission 7, the March 2010) based on a paper presented by Rohan Williamson (Canada)

Panelists: Danilo Antonio, UN-HABITAT, Stig Enemark, Denmark, Jurgen Kaufmann, Switzerland, Martin Salzmann, Netherlands, Daniel Steudler, Switzerland, Jarom Ratia, Finland, Ian Williamson and Daniel Roberge, Canada

**TS03B – Master Planning and Structural Development**

Thursday, 19 May 16:00 – 17:30
Venue: Fes 1
Commission: 8
Chair: Mme Mounia Diaa Lahlou, Morocco
Rapporteur: Mr. Frank Friesecke, Germany

Syed Mohamad Nasir (Malaysia): Best Practices in Strategic Plan Implementation – Nurturing the Enabling Environment for Surveyors (5297)

Ali Moukid (Morocco): Place of Irrigation in the New Agricultural Strategy – Green Morocco Plan (5413)

Assam El Kherri (Morocco): The National Water Strategy in Morocco (5407)

Enrico Rispoli (Italy): Infrastructures for Tourism: Panoramic and Monumental Italy through the “Green Cycling Path Route” (“Via Verde Ciclabile”) (5405)

Sayed Abdolhadi Daneshpour, Amin Heshmati and Roja Tafaroji (Iran): Controlling in Urban Spaces, Methods and Guidelines (5345)

Mhammed Belachkar and Naima Hassine (Morocco): Collecting Data for the Sea Level Monitoring (5381)

**TS03C – Spatial Data Infrastructures II**

Thursday, 19 May 16:00 – 17:30
Venue: Karam 1
Commission: 3
Chair: Prof. Hartmut Müller, Germany
Rapporteur: Mme Nabila Licer, Morocco

Hartmut Müller and Falk Würriehausen (Germany): Towards One Stop Citizen Interfaces as Entry Points to Spatial Information Infrastructures (5370)

Lesly Lam and Conrad Tang, Associate Professor (Hong Kong SAR, China): Benchmarking Spatial Data Infrastructure Development in Hong Kong (5127)

Murat Mehna (Kosovo) and Peter Laarakker (Netherlands): Development of Cadastral Information System in Corelation with NSDI in Kosovo (5131)

Peter Laarakker and Walter de Vries (Netherlands): www.OpenCadastreMap.org (under construction) (5147)

Mohsen Badawy (Egypt): Building a National Spatial Data Infrastructure in Developing Countries (5199)

**TS03D – Public Private Partnerships in Planning and Land Development I**

Thursday, 19 May 16:00 – 17:30
Venue: Karam 1
Commission: 8
Chair: Mr. Younes Taiz, Morocco
Rapporteur: Mr. Wafala Nabutola, Chair, FIG Commission 8

Frank Friesecke (Germany): Public Participation in Urban Development Projects – A German Perspective (4868)

Elisabetta Genovese, Vincent Viguié, Stéphane Hallegatte and Paolo Avney (France): Urban Modeling vs. Actual Cities: Towards an Operational Assessment of Mismatches (4981)

Jill Urban-Karr, Jack McKenna (USA) and Ursu Paul-Dan (Romania): Deployment of a Public Private Partnership (PPP) That Provides an Improved Business/administrative Tool as the Foundation for Planning, Managing and Encouraging Quality and Sustainable Economic Development for the Public Administration (5285)

Andreas Hendricks (Germany): Urban Contracts: A Method to Refinance the Costs of the Urban Development (5209)

This is a flash presentation.

Violeta Puscasu (Romania): Romanian Planning Puzzle (4998)

This is a flash presentation.

**TS03E – Land Deformation and SAR**

Thursday, 19 May 16:00 – 17:30
Venue: Karam 3
Commission: 6
Chair: Mr. Joel van Craenenbroeck, Belgium
Rapporteur: Prof. Werner Stempfhuber, Germany

Maria Henriques, Jose Lima, Ana Falcao, Malva Mancuso and Heleno Sandra (Portugal): Land Subsidence in Lisbon Area: Validation of PSInSAR Results (4997)

Khamarrul Azahari Razak, Rabieahul Abu Bakar (Netherlands), Quek Yong Wah and Wan Abdul Aziz Wan Mohd Akib (Malaysia): Geodetic Laser Scanning Technique for Characterizing Landslides along High-risk Road Zone: Applications and Limitations (4878)

Caroline Tyra (USA): IFSAR Applications in Semi-Arid and Arid Environments (4855)

This is a flash presentation.

**TS03F – Remote Sensing II**

Thursday, 19 May 16:00 – 17:30
Venue: Karam 4
Commission: 5
Chair: Mr. Lars E. Engberg, Sweden
Rapporteur: Prof. Mohamed Cherkaoui Omari, Morocco

Rishiraj Dutta (Netherlands): Remote Sensing a Tool to Measure and Monitor Tea Plantations in Northeast India (5113)

This is a peer reviewed paper.

Dehni Abdellatif and Lounis Mourad (Algeria): Cartography of Salt Affected Soil in Es-senia Aquifer (Alluvian Aquifer in Oran Region, Algeria) (5394)

Rodica Badescu, Ovidiu Stefan, Mircea Ortelecan, Ioel Samuel Veres and Nicolae Pop (Romania): Some Aspects of the Use of Visible and Infrared Images for Monitoring Hazardous Waste from Industries, Military Activities, Mining and Agricultural Activities in Romania (5128)

This is a flash presentation.

Mourad Bouziani (Morocco): Possibilities and Constraints of LIDAR Use in Moroccan Context (5242)

This is a flash presentation.

Yunus Kalkan and Serdar Bilgi (Turkey): Latest Results of Landslide Monitoring Project in Harbor of Ambarli Region (5318)

This is a flash presentation.
The GNSS network of Tunisia (Tunisia):

This is a flash presentation.

Eric Gaskellter (USA):

What’s Going to happen When High Precision GNSS is Very Inexpensive? (S400)

This is a flash presentation.

Kamel Naouali and Nejib Wazaa (Tunisia):

The GNSS Network of Tunisia (S272)

This is a flash presentation.

Zeljko Bacic, Marinko Bosiljevac and Marijan Marjanovic (Croatia):

Usage and Upgrade of the Croatian Positioning System – CROPOS (4865)

This is a flash presentation.

Victor H. S. Khoob, Hua Seng Tan, Victor H. S. Khoo, Mohd Rashid Md Noor and Mikael Lilje (Singapore):

CropoS (4865)

Croatian Positioning System – usage and upgrade of the CORS type, using the Internet as a management of Water and electricity (5140)

This is a flash presentation.

Hasanuddin Z. Abidin, Irwan Gumilar, Heri Andreas, Wenny Rusmawar and Farid H. Adi yanto (Indonesia):

On the Use of GPS CORS for Cadastral Survey in Indonesia (4803)

This is a flash presentation.

Rui Fernandes (Portugal), Barde Jatau, Ugochukwu Edozie (Nigeria), Domingos Armando and José Januário (Angola):

Rigorous Estimation of the Coordinates of Two New National Permanent GNSS Networks in Africa: NIGNET (Nigeria) and REPANGOL (Angola) (S154)

This is a flash presentation.

Ömer Yıldırım, Ömer Salgün and Sedat Bakıcı (Turkey):

CORS-TR in Turkey (S244)

This is a flash presentation.

Gabriel Badescu, Ovidiu Stefan, Rodica Badescu, Mircea Ortelean and Samuel Ioel Veres (Romania):

Positioning System GPS and RTK VRS Type, Using the Internet as a Base, a Network of Multiple Stations (S247)

This is a flash presentation.

TS03H – Development of Urban Infrastructures

Thursday, 19 May 16:00–17:30

Venue: Reda 4

Commission: 8

Chair: Mr. Wafuula Nabutowa, Chair, FIG Commission 8

Rapporteur: Mr. Ouai Benkirane, Morocco

Younes Tazi (Morocco):

The National Strategy to Develop a Competitiveness Logistics in Morocco (S583)

Mostafa Ebrahim and Ihab Abd El Elaf Hez (Egypt):

Planning Road Networks in New Cities Using GIS: The Case of New Sohag, Egypt (S423)

Hesham Alfahe (Saudi Arabia):

The Campus Master Plan Modernization Project, a King Saud University Operation Experience (S447)

Adil Daoudi (Morocco):

Management of Water and Electricity in Marrakech – Contexte de la réalisation du projet de réutilisation (S448)

Nabil Mosleh (Morocco):

The National Office of Drinking Water – A Public Operator in the Heart of Sustainable Development (S408)

TS03I – Spatial Information Applications III

Thursday, 19 May 16:00–17:30

Venue: Reda 4

Commission: 3

Chair: Prof. Mohammed Essadiki, Morocco

Rapporteur: Mr. Robert W. Foster, USA

Amira Mahmoud (Egypt):

On-line Satellite Image Catalog System Using Open-source Software (S140)

Ghita Lahlou, Ali Elbattay, Jamal Eddine Abdelloua, Miriam Wahbi and M’hamed Ait Kibir (Morocco):

Implementation of a Building Integrated Photovoltaic in Urban Lands Using the Geospatial Technology (S356)

Mourad Bouzian, El Hassane Semlali, Hanane Idaali and Karima Maaza (Morocco):

A Geographic Information System for the Management and Monitoring of Animal Diseases in Morocco (S507)

Safa Almodafer (Iraq):

Survey and Evaluation of the Water Quality in the Najaf Hill of Iraq (S503)

Joanna Kuczynska and Agnieszka Chojka (Poland):

Review of Technological Paths of Application Schema Transformation from UML to GML (S206)

This is a flash presentation.

Seyed Emad Mousavi and Amir Abouhamzeh (Iran):

Investigating and Analyzing Operating Systems of Smart Phones and Their Functioning in Providing GIS-based Services (S337)

This is a flash presentation.

TS03J – Land Administration Issues in Africa

Thursday, 19 May 16:00–17:30

Venue: Reda 5

Commission: 7 and 8

Chair: Prof. Francis Gabele, Belgium

Rapporteur: Mr. Said Bili, Morocco

Samuel Nguema Ondo Obiang (Gabon) and Bernard Puepi (Cameroon):

The Land Problematic in Central African Countries: Cameroon, Congo and Gabon’s Cases Studies – La Problematique Foncière dans les pays d’Afrique Centrale : cas du Cameroun, du Congo et du Gabon (S509)

Madamou Camara, Aly Waigalo and Garibou Guindo (Mali):

Problematic of the Cadastral Setting up in the Sub-Saharan Countries – Land Surveyor’s Intervention – Problématique de la mise en place du Cadastre dans les pays Sub-Sahéliens (intervention du géomètre-expert) (S506)

Garibou Guindo, Madamou Camara and Aly Waigalo (Mali):


Madamou Ndir (Senegal):

National Domain, The Law and the Reform’s Project Domain National – la Loi et le Projet de Réforme (S170)
Friday, 20 May 2011 11:00–12:30

PS04A – Management of State and Public Sector Land
Friday, 20 May 11:00–12:30
Venue: Salle des Ministres Commission 5
Chair: Mr. Mikhail Litij, Chair, FIG Commission 5
Rapporteur: Mme Zahra Dafir, Morocco
Daniel Roberge (Canada): The Register of the Domain of the State, an Essential Infrastructure in Public Land Management (5281)
Elikkos Elia (Cyprus) and Richard Grover (United Kingdom): The Management of State and Public Sector Land (4814)

TS04C – SIM and Planning
Friday, 20 May 11:00–12:30
Venue: Karam 1
Chair: Mr. Gerasimos Apostolatos, Greece
Rapporteur: Mr. Adil Boumazied, Morocco
Orhan Ercan and Adem Tunca (Turkey): Usages of GIS Techniques in a Balanced Spatial Development Approach for 3rd Generation Planning Project of the Bosphorus Region (4800)
Clarissa Augustinus (Kenya) and Chryssy Potsiou (Greece): Informal Urban Development in Europe: Experiences from Albania and Greece (5192)
MohamadReza Rajabi, Ali Mansourian and Kambiz Borna (Iran): Utilizing the Analytical Hierarchy Process and GIS to Identify and Transfer Schools and Residential Areas Adjacent to High Voltage Power Transmission Lines in Tabriz-Iran (5214)
Tahsin Yomralioglu and Arif Cagdas Aydoganoglu (Turkey): Managing Geo-Data to Support Urban Planning Development Process in Turkey (5353)

TS04D – Valuations I
Friday, 20 May 11:00–12:30
Venue: Karam 2
Chair: Mr. Sidi Mohammed Talbi Alami, Morocco
Rapporteur: Dr. Frances Plimmer, FIG Commission 9
Anna Baranska (Poland): Qualitative and Quantitative Methods for Assessing the Similarity of Real Estate (4811)
Nabil Bounajma (Morocco): The Practice of the Real Estate Valuation in Morocco (4929)
Victoria Bello (Nigeria): The Impact of Urban Crime on Property Values in Akure, Nigeria (4775)
Mehmet Ertas and Ayhan Goktepe (Turkey): Determination of the Valuation Criteria in Rural Areas and the Account of the Scoring Weights of Some (5049)

Press Conference – FIG/ONIGT
Friday, 20 May 10:30–11:00
Venue: Reda 1

Academic Members Forum
Friday, 20 May 11:00–12:30
Venue: Commission MRS
Commission: FIG Academic Members and 2
Chair: Dr. Chryssy Potsiou, FIG Vice President
Rapporteur: Prof. Steven Frank, Chair, FIG Commission 2

FIG General Assembly
Breakout Session on Membership Issues (Voting Rights)
Friday, 20 May 11:00–12:30
Venue: Fes 2
Commission: FIG members
Chair: Mr. Iain Greenway, FIG Vice President
Open discussion on the membership issues (voting rights) based on the introduction at the first session of the General Assembly. Session is open for FIG member associations interested in this topic.

TS04A – National Geodesy I
Friday, 20 May 11:00–12:30
Venue: Salle des Ministres Commission 2
Chair: Dr. Chryssy Potsiou, FIG Vice President
Rapporteur: Prof. Steven Frank, Chair, FIG Commission 2

Daniel Roman and Neil Weston (USA): OPUS-Database: Supplemental Data for Better Datum Conversion Models (4860)
This is a peer reviewed paper.
Vassilios D. Andritsanos, Michail Gianniiou and Vassilios Pagounis (Greece): Vertical Datum Evaluation Based on Heterogeneous Data Combination over Attica, Greece (5035)

John Beavan and Graeme Blic (New Zealand): The Impact of the 2010 Darfield (Canterbury) Earthquake on the Geodetic Infrastructure in New Zealand (4859)

Jens Riecken (Germany): Geodetic Reference System 2015 – the Approach in North-Rhine Westphalia (4899)

Abdulmajid Ben Hadj Salem (Tunisia): The Unification of the Tunisian Geodetic Terrestrial Networks (5273)

My Ahmed Jkoua (Morocco): Collective Land Management in Morocco (5380)

NOTE: Simultaneous interpretation is provided in sessions in rooms Salle des Ministres and Fes 1.
TS04E – Laser Scanners
Friday, 20 May 11:00–12:30
Venue: Karam 3
Commission: 6
Chair: Prof. Alain de Wulf, Belgium
Rapporteur: Prof. Gethin Roberts, Chair, FIG Commission 6
Seongha Lim (Republic of Korea): Realization and Operations of TLS (Terrestrial Laser Scanner) 3D Data on Web Browsers (4061)
Reginaldo Macedônia da Silva, Mauricio Roberto Veronez, Francisco Manuel Wohmarth Tognoli, Larissa Jacobi and Débora Lamberty (Brazil): Digital Outcrop Model At Geographical Analysis and Interpretation: Case Study Based On Data from Laser Scanner 3D Terrestrial (4988)
Jens-André Paffenholz, Tobias Kersten, Steffen Schön and Hansjörg Kutterer (Germany): Analysis of the Impact of Rotating GNSS Antennae in Kinematic Terrestrial Applications (4881)
Aymen Trigui (Tunisia): Postprocessing of Laserscanning Point Clouds for the As-built Modelling of Petrochemical Installations (5033)
George Pantazis and Konstantinos Nikolitass (Greece): Assessing the Use of the “Light” Laser Scanners and the Monte Carlo Technique for the Geometric Documentation (5073) This is a peer reviewed paper.
Hamza Alkhâ bü and Hansjörg Kutterer (Germany): Towards an Advanced Estimation of Measurement Uncertainty Using Monte-Carlo Methods – Case Study Kinematic TLS Observation Process (5143)

TS04F – Project and Organisation Management
Friday, 20 May 11:00–12:30
Venue: Karam 4
Commission: 10
Chair: Mr. Robert Sinkner, Chair, FIG Commission 10
Rapporteur: Mr. Rachid Tellati, Morocco
Krishna Mochtar (Indonesia): Technology Innovation Management in Indonesia Construction (5012)
This is a peer reviewed paper.
Chan Kh (Hong Kong SAR, China): Appraisal of Determinants in Property Maintenance (5014)
Andrea Massaro (Italy): The Home Plan Proposed by the Italian Government Is a New Opportunity for Real Estate Owners (5077)
Li Zhang and Schwieger Volker (Germany): Real Time Quality Assurance Indeces for Residential House Construction Processes (4888) This is a peer reviewed paper.
Borvorn Israngkura Na Ayudhya (Thailand): Appraisal of Common Dispute Problems over Residential Building Projects in Hong Kong (4788) This is a peer reviewed paper.

TS04G – Gender Issues in Land Administration
Friday, 20 May 11:00–12:30
Venue: Karam 5
Commission: 7, UN-Habitat and GLTN
Chair: Ms. Asa Jonsson, UN-HABITAT
Rapporteur: Ms. Claire Galpin, France
Asa Jonsson (Kenya): Evaluating Land Tools from a Gender Perspective: GLTN’s Experience of Implementing the Gender Evaluation Criteria (4986)
David Ishaya, Basil Makama and Nathan Sabo (Nigeria): The Duties and Challenges Faced by Female Estate Surveyors and Valuers – Empirical Challenges from Kaduna, Nigeria (4931)
Ernest Uwayezu and Theodimor Mugiraneza (Rwanda): Land Reform Policy in Rwanda and Land Tenure Security for all Citizens: Provision and Recognition of Women’s Rights over Land (4914) This is a peer reviewed paper.

TS04H – Land Administration in Africa: Case Studies
Friday, 20 May 11:00–12:30
Venue: Reda 2
Commission: 7 and FGF
Chair: Prof. Michael Barry, Canada
Leon Zalo (Cote D’Ivoire), Kestutis Sabaliauskas and Steponas Deveikis (Lithuania): L’acquis du cadastre et du registre foncier immobilier de Lituanie pour les pays africains. Un bref rapport sur la mission du cadastre foncier rural de Côte d’Ivoire en Lituanie 2010 (5070)
El Hadji Moustaph Mbaye C. (Senegal): Cadastral Inquiries and Good Governance – Enquêtes cadastrales et bonne gouvernance (5204)
Aly Waigalo, Mamadou Camara and Garibou Guindo (Mali): Land Problematic in the Sahelian Regions of Mali: Mopti Region’s Case Study – Land Surveyor’s Role – Problématique foncière dans les régions sahéliennes du Mali : cas de la région de Mopti (rôle du géometre expert) (5061)

TS04I – Hydrography-Assisted Monitoring
Friday, 20 May 11:00–12:30
Venue: Reda 4
Commission: 4
Chair: Mr. Antoine Mansour, Lebanon
Rapporteur: Mr. Gordon Johnston, United Kingdom
Cheikh Oumar Ndiaye, Alioune Kane (Senegal) and Violeta Puscău (Romania): Vulnerability of Senegal’s South Coast: Perspectives with the Climate Change’s Context (4990)
Abdallah Saad, Ahmad Shaker, Dalal Alnagar and Hoda Faisal (Egypt): Absolute Sea Level Rise Estimation at Alexandria Using Tide Records and GPS Observations (5163)
Kamyar Shojaee (United Arab Emirates): Underwater Circular Curve Implementation for Offshore Pipeline Installation; Case Study: South Pars Phase 12 Pipeline Snake-lay Operation (5378)
Miguel J. Sevilla, Joaquin Zurutuza and Adriana M. Martin (Spain): Three Years of Tide Gauge Measurements in the Pasajes Harbour (5245) This is a flash presentation.
Sohair Saad Zaghoul (Egypt): The Hydrological Characteristics of the Blue Nile from Deim to Khartoum (5371) This is a flash presentation.

TS04J – Geodetic Applications in Various Situations
Friday, 20 May 11:00–12:30
Venue: Reda 5
Commission: 5 and 6
Chair: Dr. Volker Schwieger, Germany
Rapporteur: Mr. Khaled El-Rabbany, Lebanon
Mohamed Elsobei and Ahmed El-Rabbany (Canada): Effect of Second-Order Ionospheric Delay on Precise Point Positioning (5249)
Mohamed Azab, Ahmed El-Rabbany (Canada), Nabil Ali Shoukry and Ramadan Khalil (Egypt): Precise Point Positioning Using Combined GPS/GLONASS Measurements (5277)
Kate Fairlie, Mark Whitty, Mitchell Leach, Fadhilah Norzahari and Adrian White (Australia): Spatially Smart Wine – Testing Geospatial Technologies for Sustainable Wine Production (5089)
Friday, 20 May 2011 14:00–15:30

**Director General Forum I**
Friday, 20 May 14:00–15:30
Venue: Fes 2
Commission: Director General Forum
Chair: Mr. CheeHai Teo, FIG President
Rapporteur: Mr. Iain Greenway, FIG Vice President
– By invitation only

**FIG Corporate Members Meeting**
Friday, 20 May 14:00–15:30
Commission: FIG Corporate Commission
Chair: Dr. David Martin, Chair of the FIG Standards Network
– By invitation only

**Standards Network Meeting**
Friday, 20 May 14:00–15:30
Venue: Commission MR1
Commission: Standards Network
Chair: Mr. Ben Ali Taoufik, Morocco
Rapporteur: Mr. Kimuyu Mulinge, Kenya

**TS05A – Planning Policies and Environmental Improvement**
Friday, 20 May 14:00–15:30
Venue: Salle des Ministres Commission: 8
Chair: Mr. Ben Ali Taoufik, Morocco
Rapporteur: Mr. Kimuyu Mulinge, Kenya

**TS05B – Developments in Land Administration**
Friday, 20 May 14:00–15:30
Venue: Fes 1
Commission: 7
Chair: Mr. Najib BenZouina, Morocco
Rapporteur: Mr. Meriem El Guess, Morocco

**TS05C – Spatial Data Infrastructures III**
Friday, 20 May 14:00–15:30
Venue: Karam 1
Commission: 3
Chair: Ms. Sonja Dimova, Macedonia FYROM
Rapporteur: Mme. Nouzha Ouadou, Morocco

**TS05D – National Geodesy II (Flash)**
Friday, 20 May 14:00–15:30
Venue: Karam 2
Commission: 5
Chair: Mr. Rob Sarib, Australia
Rapporteur: Mr. Mohamed Himam, Morocco

**Rachid Azzouzi (Morocco):** Redefinition of the Moroccan Mer-chich Local Geodetic System in the WGS84 and ITRF Global Reference Frames Related to Doppler, GPS and GNSS Observations (4903)
This is a flash presentation.

Nic Donnelly, John Ritchie and Matt Amos (New Zealand):
Re-establishment of the New Zealand Survey Control System Following the 2010 Darfield (Canterbury) Earthquake (4871)
This is a flash presentation.

Mikael Lilje and Lars Engberg (Sweden):
Strategic Plan for Geodesy in Sweden (4804)
This is a flash presentation.

Michael Dennis and Mark Eckl (USA):
Making It More Efficient and More Accurate: Modernizing the U.S. National Spatial Reference System (5293)
This is a flash presentation.

Pavel Novak (Czech Republic):
Integrated Geodetic Infrastructure at the Geodetic Observatory Pecny, Czech Republic, in Service of National and International GNSS Projects (4867)
This is a flash presentation.

Pal Nikollji (Albania) and Bashkim Idrizi (Macedonia, FYROM):
Coordinate Reference Systems Used in Albania to Date (5038)
This is a flash presentation.

Haluk Ozener (Turkey):
Current Geodetic Deformation Rates at Western North Anatolian Fault Zone (NAFZ), Turkey (5360)
This is a flash presentation.

NOTE: Simultaneous interpretation is provided in sessions in rooms Salle des Ministres and Fes 1.
Friday, 20 May 2011 14:00–15:30 (continued)

TS05E – Valuations II
Friday, 20 May 14:00–15:30
Venue: Karam 3
Commission: 9
Chair: Dr. Frances Plimmer, Chair, FIG Commission 9
Rapporteur: Mr. Aziz el Achhab, Morocco

Moha El-ayachi, Said El Azrek, Mohamed Yassin Mourir and Adnan Bajeddi (Morocco): Analysis of the Practicing of the Moha El-ayachi Morocco

Chair: Dr. Frances Plimmer, Chair, FIG Commission 9
Rapporteur: FIG Africa Task Force

Adnan Bajeddi

This is a peer reviewed paper.

TS05F – Land Tenure in Africa
Friday, 20 May 14:00–15:30
Venue: Karam 4
Commission: 7 and Africa Task Force
Chair: Dr. Danilo Antonio, UN-HABITAT
Rapporteur: FIG Africa Task Force

Emmanuel Offei Akrofi (South Africa):
Land for Peri-urban Infrastructure in Customary Areas: A Case Study of Kumsa, Ghana (4965)

Adjoumany Emile Kokoh (Cote D’Ivoire):
Land Administration under Customary Regimes in Africa: Case Study of the Bryon Gyeaman People in Ivory Coast – L’Administration des terres sous les regies coutumiers en Afrique: cas du peuple Bryon Gyeaman en Cote d’Ivoire (5094)

Jean Marie Habwintahe, René Claude Niyonkuru (Burundi) and Claire Galpin (France):
Bilan d’une experience novatrice au Burundi ou comment oever à combler le fossé des cultures (5096)

René Claude Niyonkuru (Burundi):
Land Administration in Burundi: Risk and Dispute Analysis, Prevention and Management (5099)

Bareng Malatsi (Botswana) and Åke Finnström (Sweden):
Reformation of the Land Administration in Botswana (5233)

Wallace Mukupa (Zambia):
Land Administration to Support Sustainable Development (5191)

Edward Chikhwenda (Malawi):
Assessing Community Based Rural Land Development Project in Malawi (5137)

TS05G – Innovative and Pro-poor Land Records and Information System II
Friday, 20 May 14:00–15:30
Venue: Karam 5
Commission: 7
Chair: Mr. Mohamed Timouli, Morocco
Rapporteur: FIG Commission 7

Paul van Asperen (Netherlands):
Evaluation of Pro-poor Land Administration from an End-user Perspective: A Case-study from peri-urban Lusaka, Zambia (5280)

Ying Jing (China, PR), Jaap Zevenbergen (Netherlands) and Zhimin Ma (China, PR):
Assessing LARS-integrated Participation Procedure in Urban Adjudication in China (5068)

Geoff Hay and G. Brent Hall (New Zealand):
Implementing Open Source Software for Land Administration in Developing Nations (4857)

Krishna Raj B.C. (Nepal):
Modernization Initiatives with the Use of OSCAR (Open Source Cadastre and Registration Software) in Nepal Cadastre and Land Registration (5074)

Katarzyna Sobolewska-Mikutksa (Poland):
Development of Rural Areas in the International Aspects (4849)

Oksana Sukhova (Ukraine):
How to Stop Emigration by Land Policy (4902)

TS05H – Cadastre – Case Studies
Friday, 20 May 14:00–15:30
Venue: Reda 2
Commission: 7
Chair: Mr. Francis Roy, Canada
Rapporteur: Mr. Omar Oubella, Morocco

Mohammad Azmi Mohd Zin (Malaysia):
Public Private Partnerships in Innovation: The Exciting Dimension of Leap-frogging the The Malaysian Surveying and Mapping Industry’s Progress (5343)

Leiv Bjarte Mjos (Norway):
Land Subdivisions in Norway: A Comparison with Denmark and Sweden (5284)

Aune Rummukainen (Finland):
Usufructs in the Finnish Jurisdictional System (4828)

Lars Åström and Ida Magni (Sweden):
Cadastral Procedures for Modernising Regional Electric Power Grids (4955)

Jelena Unger and Željko Bačić (Croatia):
Role of Cadastre in Sustainable Planning and Development in Croatia (4815)

Bambang-Edhi Leksorno, Yuliana Susilowati, Suyuz Windayana and Indin Yunindra (Indonesia):
Managing Land Registration Spatial Temporal Aspects in National Land Information System (5184)

Omar Ettarid (Morocco): This is a flash presentation.

TS05I – Spatial Information Processing I
Friday, 20 May 14:00–15:30
Venue: Reda 4
Commission: 3
Chair: Ms. Helen Murray, Ireland
Rapporteur: Mr. Fatiha Ibanann, Morocco

Olaekan Isioye and Paul Jobin (Nigeria):
An Assessment of Digital Elevation Models (DEM’s) from Different Spatial Data Sources (4911)

Sanae Ettarid El Messati Bochra and Mohammed Chekkoua Omary (Morocco):
Direct Georeferencing of Aerial Photographs Using GPS/INS Assisted Aerotriangulation (5148)

Kazimierz Beczek and Khairunnisa Ibrahim (Brunei Darussalam):
On the Positional Accuracy of the GoogleEarth Imagery (4947)

Ahmed Elsonbaty and Mostafa Ibrahim (Egypt):
A New Algorithm to Measure The Details on Objects’ Surfaces Using Digital Close-Range Photogrammetry (5084)

Milan Talich, Ondrej Bohn and Lubomir Soukup (Czech Republic):
Bayesian Classification of Digital Images by Web Application (4827)

Sinasi Kaya, Erkan Bozkurtoglu, E. Ozgur Avsar, Umut Aydar and Dursun Zafer Seker (Turkey):
Determination of Roughness Angles of Surfaces Using Laser Scanner (5187)

This is a flash presentation.

TS05J – Hydrography in Practice
Friday, 20 May 14:00–15:30
Venue: Reda 5
Commission: 4
Chair: Mr. Ali Mould, Morocco
Rapporteur: Ms. Angela Etonovnbe, Nigeria

Iman Abdel Hamid, Victor Abbott, Samantha Lavender and Kenneth Kingston (United Kingdom): Chromo-stereoscopy for Enhanced Viewing in Opaque Environment (4895)

Volker Boeder, Thomas P. Kersten, Thomas Thies and Arne Sauer (Germany):
Mobile Laser Scanning on Board Hydrographic Survey Vessels – Applications and Accuracy Investigations (4927)

Harry Wirth and Thomas Brüggemann (Germany):
The Development of a Multiple Transducer Multibeam Echoounder System for Very Shallow Waters (5200)

Hugh Parker, Mark Penley, Mark Sinclair (Australia) and Paul Seaton (United Arab Emirates):
Fugro Commerce New Airborne Lidar Bathymetry Trials (5389)

Erwin Heine (Austria):
Hydrographic Surveying of the Subaqueous Delta Plain of the River Rhine at Lake Constance (5290)

Lotfi Diouri and Mohammed El Aichati (Morocco):
The Surveying Profession in the Service of the Harbor Activities (5304)
This is a flash presentation.

Sylvester Efe Owuojeta (Nigeria):
Early Production System (EPS) Barge Movement and Installation at Olovo Creek Production Platform, Benin River Area (5135)
This is a flash presentation.
Friday, 20 May 2011 16:00–17:30

Director General Forum II
Friday, 20 May 16:00–17:30
Venue: Fes 2
Commission: Director General Forum
Chair: Mr. CheeHai Teo, FIG President
Rapporteur: Mr. Iain Greenway, FIG Vice President
– By invitation only

FIG Commission 5 Working Group S.1 Standards, Quality Assurance and Calibration
Friday, 20 May 16:00–17:30
Venue: Commission MR1
Commission: 5
Chair: Dr. David Martin, Chair of the FIG Standards Network.
– Open for all interested participants

NOTE: Simultaneous interpretation is provided in sessions in rooms Salle des Ministres and Fes 1.

TS06A – Planning and Managing Urbanization
Friday, 20 May 16:00–17:30
Venue: Salle des Ministres Commission: 8
Chair: Mr. Taieb Berrada Allam, Morocco
Rapporteur: Mr. Wafula Nabutula, Chair, FIG Commission 8
Hassan Choukou (Morocco): City Planning and Urban Management in Morocco (5236)
Abdelwahed Idrissi (Morocco): Urban Planning between Indentity and a Trivial Behavior (5315)
Kalla Mahdi, Dridi Hadda, Merdaci Abdelmoumen and Habibi Yahiaoui (Algeria): La circulation dans la ville de Batna-Est algerien Realite et perspectives – approche par les SIG (5189)
Guessoum Nabila, Ait Benamar Dalila, Zerabib Ahsene, Hamidouche Ouassila and Haddouche Abida (Algeria): Apport des etudes de microzona-geisme dans l’aménagement des futures nouvelles villes: cas de la nouvelle ville de Sidi Abdellah (Algerie) (5364)
Mounia Diaa Lahlou (Morocco): The Public Policies in Social Housing Management in Morocco (5305)
Mehdi Ziaei and Fatemeh Hajizade (Iran): Remote Sensing/GIS Integration for Evaluating Urban Expansion and Monitoring and Predicting Land Use/Cover Changes in Birjand, Iran (5158)
This is a flash presentation.

TS06B – Spatial Data Infrastructures in Support of Climate Change and Risk/Disaster Management I
Friday, 20 May 16:00–17:30
Venue: Fes 1
Commission: 3
Chair: Mr. Pierre Bilibolte, France
Rapporteur: Mr. Tarek El Maftouhi, Morocco
Redouane Bouaicha, Mohamed Rouchi and Ahmad Bouziane (Morocco): Application of Remote Sensing and GIS to Spatial Hydrologic Modeling – Taifine Basin in Tangier Area (4930)
Mohamed Abdalla (Bahrain): 3D City Modelling for Natural Disasters Management and Home-land Security Applications (4942)
Bence Toronyi, Gyula Ivan and Gabor Mikus (Hungary): Support of Disaster Management and SDI (5138)
Raid Al-Tahir, Marcus Arthur and Dexter Davis (Trinidad And Tobago): Low Cost Aerial Mapping Alternatives for Natural Disasters in the Caribbean (5153)
Muhammad Adeel (Pakistan): Role of Public SDIs for Sustainable Urban Development of Developing Countries (5424)

TS06C – Land Administration: Environmental Issues
Friday, 20 May 16:00–17:30
Venue: Karam 1
Commission: 7
Chair: Prof. El Hassan Semlali, Morocco
Rapporteur: Mr. Jean-Paul Miserrez, Switzerland
Ha Nguyen Manh (Viet Nam): Application USLE and GIS Tool to Predict Soil Erosion Potential and Proposal Land Cover Solution to Reduce Soil Loss in Tay Nguyen, Vietnam (5011)
David Mitchell (Australia), Jaap Zevenbergen, Christiaan Lemmen and Paul van der Molen (Netherlands): Land Administration for REDD+ and Voluntary Carbon Market Projects (5044)
This is a peer reviewed paper.

TS06D – Informal Settlement, Planning and Governance
Friday, 20 May 16:00–17:30
Venue: Karam 2
Commission: 8
Chair: Prof. Moulay Abdelghani Abouhani, Morocco
Rapporteur: Mr. Collins K’Owuo, Kenya
Daniel Weldegebriel Ambaye (Ethiopia): Informal Settlement in Ethiopia, the Case of Two Kebeles in Bahir Dar City (5096)
This is a peer reviewed paper.

TS06E – Laser Scanning and Photogrammetry
Friday, 20 May 16:00–17:30
Venue: Karam 3
Commission: 6
Chair: Dr. Ouorup Ogundipe, United Kingdom
Rapporteur: Prof. Mohamed El Ghouat, Morocco

Orthodoxia Arabatzi, Maria Tsakiri and Vassilios Pagoumis (Greece): Experiences from Cultural Heritage Documentation Using Modern Geodetic Techniques – Monuments at the Acropolis of Athens (4992)
Timothy Nuttens, Philippe De Maeyer, Alain De Wulf, Rudi Goossens and Cornelis Stal (Belgium): Terrestrial Laser Scanning and Digital Photogrammetry for Cultural Heritage: An Accuracy Assessment (5267)
Kamal Ben Addou Idrissi and Kenza Ait Kadi (Morocco): Auscultation of the Mosque Has san 2 in Morocco by Lasergrammetry: Constraints and Lessons (5331)
Ferruh Yıldız, Murat Yakar, Mustafa Zeybek, Melisa Yolcu and Cakan Osman Tanidik (Turkey): Photogrammetric Modeling of Basilar Monuments (5333)
Murat Yakar, Ferruh Yildiz, Mustafa Zeybek, Melisa Yolcu and Tuba Filiz (Turkey): Photogrammetric Modeling of Lilac Spring Monuments (5334)

Frida Granbom and Emeli Ljungnæs (Sweden): Documenting Dharavi’s Informal Housing Market (5263)
Divankhan Ahmad (Azerbaijan): Informal Settlements in Azerbaijan (5226)

Turgut Ayten (Turkey): Formation of Fringe Towns Metropolitan Cities: Konya Karatay-Sakytan Village Example (4821)

Saadi Samira (Algeria): Développement de zone périph-urbaine du Grand Alger (5201)
This is a flash presentation.

Jean-Yves Bourguignon (France): Assessing the Potential of Remote Sensing and GIS to Spatial hydrologic Modeling – Taifine Basin in Tangier Area (4930)

Gábor Mikus and Bence Toronyi (Hungary): Support of Disaster Management and SDI (5138)

Goossens and Cornelis Stal (Belgium): Terrestrial Laser Scanning and Digital Photogrammetry for Cultural Heritage: An Accuracy Assessment (5267)

Ferruh Yıldız, Murat Yakar, Mustafa Zeybek, Melisa Yolcu and Cakan Osman Tanidik (Turkey): Photogrammetric Modeling of Basilar Monuments (5333)

Murat Yakar, Ferruh Yildiz, Mustafa Zeybek, Melisa Yolcu and Tuba Filiz (Turkey): Photogrammetric Modeling of Lilac Spring Monuments (5334)

Kamal Ben Addou Idrissi and Kenza Ait Kadi (Morocco): Auscultation of the Mosque Has san 2 in Morocco by Lasergrammetry: Constraints and Lessons (5331)

Ferruh Yıldız, Murat Yakar, Mustafa Zeybek, Melisa Yolcu and Cakan Osman Tanidik (Turkey): Photogrammetric Modeling of Basilar Monuments (5333)

Murat Yakar, Ferruh Yildiz, Mustafa Zeybek, Melisa Yolcu and Tuba Filiz (Turkey): Photogrammetric Modeling of Lilac Spring Monuments (5334)
TS06F – Construction and Sustainable Development
Friday, 20 May 16:00–17:30
Venue: Karam 4
Commission: 10
Chair: Mr. Robert Sinkner, Chair, FIG Commission 10
Rapporteur: FIG Commission 10

Thoedtida Thipparat and Wirat Sanudomm (Thailand):
Model for Assessing Environmental Pollution for Road Construction Activities by Pollution Index Using Fuzzy AHP (4770)

Canon Tong (Hong Kong SAR, China):
Knowledge Transfer between Partners in Public Private Partnership Projects (5129)

Mauro Catalano (Italy):
Sustainable Housing in the Province of Alto Adige, Italy – “Climate House” (5078)

Mohamed Bouabaz and Mourad Mordjaoi (Algeria):
Comparison of Models for Estimating Construction Costs Based on Neural Networks and Fuzzy Logic for Bridges and Civil Engineering Works (4791)

This is a flash presentation.

TS06G – GNSS and Land Deformation (Flash)
Friday, 20 May 16:00–17:30
Venue: Karam 5
Commission: 5, 3 and 8
Chair: Mr. Gaeme Blick, New Zealand
Rapporteur: Mr. Mostapha Akendouch, Morocco

Hasanuddin Z. Abidin, Irwan Gumilar, Heri Andreas, Teguh P. Si启迪 (Indonesia) and Yoichi Fukuda (Japan):
Study on Causes and Impacts of Land Subsidence in Bandung Basin, Indonesia (4784)

Marcin Uradzinski (Poland):
Range Analysis of RTK Base Station in Urban Environment (5017)

This is a flash presentation.

Dexter Davis, Ijaz Ramshahi, Machel Higgins (Trinidad and Tobago), Allison Kealy (Australia) and Raid Al-Tahir (Trinidad and Tobago):
Evaluating the Quality of GNSS CORS Data for Seismic Monitoring in the Eastern and Southern Caribbean (5213)

This is a flash presentation.

Eleonora Bertacchini, Alessandro Capra, Cristina Castagnetti and Alessandro Corsini (Italy):
Atmospheric Corrections for Topographic Monitoring Systems in Landslides (4905)

This is a flash presentation.

Gincho Kostov (Bulgaria):
Using of both Fast Static and RTK Modes for GNSS Determinations to Obtain Required High Accuracy and Productivity, According to the Current Possibilities of the IT (4933)

This is a flash presentation.

Pedro Almeida (Portugal), Rachid Azzouzi, Yousef Hahou (Morocco) and Rui Fernandes (Portugal):
Investigation of the Current Kinematics of the Nubia-Eurasia Plate Boundary in North West Morocco (5155)

This is a flash presentation.

TS06H – Boundary Delination Issues: From Parcel to Country Level
Friday, 20 May 16:00–17:30
Venue: Reda 2
Commission: 1 and 7
Chair: Mr. Daniel Roberge, Chair, FIG Commission 7
Rapporteur: FIG Commission 7

Sora Lokita and Austrit Rimayanti (Indonesia):
The Role of Indonesian Surveyors in Solving Indonesia-East Timor Land Boundary (5134)

Paula Santos, Ana Roque (Portugal) and José Mucombo (Mozambique):
Revision of the Mozambique Frontiers: a Cooperation Project (5107)

Paddy Prendergast, Colman Horgan and Gabriel Brennan (Ireland):
Issues Related to Boundary Mapping in Ireland (5390)

TS06I – Valuations CAMA (Computer Assisted Mass Appraisal)
Friday, 20 May 16:00–17:30
Venue: Reda 4
Commission: 9
Chair: FIG Commission 9
Rapporteur: FIG Commission 9

Arvydas Bagdonavius and Steponas Deveikis (Lithuania):
Mass Appraisal – the Method and an Experience in Lithuania * Evaluation de masse – la recherche de la méthode et l’expérience en Lituanie (4890)

Stojanka Brankovic and Menad Tesla (Serbia):
Development of Real Estate Mass Valuation Concept in the Republic of Serbia (4896)

Varnavas Pashouli (Cyprus):
The General Valuation Law and the CAMAS in the Lands and Surveys Department in Cyprus (5406)

Weidong Qu (China, PR):
The Appraisal of Land Transfer Price Using Monte Carlo Hypothetical Development Method (4936)

Jolu Bunda, Ernest Bugay, Louie Balicanta, Matthew Dimal and Enrico Paringit (Philippines):
Site Selection for Subdivision Development in Guiquintong, Bulacan Using GIS and Regression Analysis (5043)

Rabi El Hamzaoui, Ahmed Raissouni and Abdelkrim El Arrim (Morocco):
The Contribution of Geomatics in the Sustainable Management of Coastal Areas: Application of a Coastal Geographic Information System in North-Western Morocco (5325)

This is a peer reviewed paper.

Murat Uysal, Saffet Erdogdu and Ural Yildirim (Turkey):
Changes in the Coastline and Water Level of the Aksehir and Eber Lakes between 1975 and 2010 (5225)

Rabbi El Hamzaoui, Ahmed Raissouni and Abdelkrim El Arrim (Morocco):
The Contribution of Geomatics in the Sustainable Management of Coastal Areas: Application of a Coastal Geographic Information System in North-Western Morocco (5325)

This is a flash presentation.

Berki Ustun (Turkey):
Mapping Water Quality by Using Satellite Imagery (5194)

This is a flash presentation.

TS06J – Hydrography and the Environment
Friday, 20 May 16:00–17:30
Venue: Reda 5
Commission: 4
Chair: Dr. Michael Sutherland, Chair, FIG Commission 4
Rapporteur: Mr. Nabil Ait Jaad, Morocco

Angela Kesiena Etonovbve (Nigeria):
Devastating Effect of Flooding in Nigeria (5002)

Olusegun Badejo and Peter NWilo (Nigeria):
Oil Spill Model for Oil Pollution Control (5005)

This is a peer reviewed paper.

Rami Al Ruzouq, Abdullah Al Zoubi, Abdurahman Abueladas and Emad Akawi (Jordan):
Hazard Mapping Along the Dead Sea Shoreline (5037)

This is a peer reviewed paper.

China Forum – China Surveying and Mapping Serves the World
Friday, 20 May 18:00–19:30
Venue: Fes 1

– Open for all interested participants

Programme
– MapWorld-Platform of Internet Geomatics Service of China
– Innovative Geospatial Technology in China
– Chinese Surveying Equipment: The Driving Force for Development of Africa
– China GIS Industry and SuperMaps Achievements
– Speech by Dr. Li Pengde, Deputy Director General, State Bureau of Surveying and Mapping of China
– Followed by a reception

China Forum Reception
Friday, 20 May 20:00–21:00
Venue: Palais des Congrès

Reception hosted by State Bureau of Surveying and Mapping of China

– By invitation only
Saturday 09:00–10:30

PS03 – Plenary Session III – Environmental Issues and Sustainable Development
Saturday, 21 May 09:00–10:30
Venue: Salle des Ministres
Chair: Prof. Mohamed Sadiki, President, Institute of Agronomy and Veterinary Medicines, Morocco
Rapporteur: Prof. John Hannah, Chair, FIG Task Force on Surveyors and Climate Change, New Zealand

Abdelkebir Zahoud, Secretary of State, Energy Mines, Water and Env. (Morocco);
Environmental Issues and Sustainable Development – Moroccan Perspective (5440)

Kamel Ayadi, International Consultant (Tunisia);
Environmental Issues and Sustainable Development (5441)

Stig Enemark, Aalborg University (Denmark):
The Climate Change Challenge: the Role of Land Professionals (5442)

NOTE: Simultaneous interpretation is provided in sessions in rooms Salle des Ministres and Fes 1.

Saturday, 21 May 2011 11:00–12:30

TS07A – SIM and Cadastre
Saturday, 21 May 11:00–12:30
Venue: Salle des Ministres
Commission: 3 and 7
Chair: Dr. Martin Salzmann, Netherlands
Rapporteur: Mr. Amed Tabai, Morocco

Gerhard Muggenhuber, Gerhard Navratil, Christoph Twaroch and Reinfried Mansberger (Austria):
Development and Potential for Improvements of the Austrian Land Administration System (5112)

Martin Salzmann (Netherlands):
Co-creating SDI’s: Bridging the Gap between Organizational Cultures (4817)

Bachir Ablat (Morocco):
The GIS: A Decision Support Tool in Irrigation Domain (5411)

Laurent Poldori (France):
Potential and Limitations of Remote Sensing for Cadastre and Land Management (5230)

El Hassan Benaim, René M. Kabré and Mohamed El Mehdii El Imamé (Morocco):
Can We Use ACFCF Permanent GPS Stations in the Cadastral Work in Morocco? (5197)
This is a flash presentation.

TS07B – Land Governance
Saturday, 21 May 11:00–12:30
Venue: Fes 1
Commission: 7
Chair: Mr. Mouhsine Alaoui Mhamdi, Morocco
Rapporteur: Mr. Tommy Osterberg, Sweden

Chris Grover (United Kingdom):
Modelling Indicators of Land Governance (4999)

Christian Thellufsen (Denmark):
Developing Cadastral Cross-governmental Digital Administration (4826)

Xavier Prigent (France):
Sustainable Development – Sensitization and Methodological Approach (4882)

Samsudin Salafarina (Malaysia), Lim Lay-Cheng J and William McCuskey (United Kingdom):
A Review of Organizational Arrangements in Malaysia Land Administration System towards Good Governance: Issues and Challenges (4853)

Joseph Salukvadze (Georgia) and Olga Medvedkov (USA):
Land Governance in the South Caucasus Region: Comparative Study of Georgia, Armenia and Azerbaijan (5027)

Fahria Masum (Germany):
Strengthening Individual and Institutional Capacity and Developing Framework for Good Governance: Need an Alternative Approach for Proper Land Administration (5159)

Manfred Bottmeyer (Germany):
Land Management of Former Industrial Landscapes in the Economic Metropolitan Ruhr (4798)

TS07C – Geoid and GNSS Heighting
Saturday, 21 May 11:00–12:30
Venue: Fes 2
Commission: 5
Chair: Mr. Michael Dennis, USA
Rapporteur: Mr. Mohammed Ouabab, Morocco

Eleni-Georgia Alevizakou and Evangelia Lambrou (Greece):
Fast and Convenient Determination of Geoid Undulation N in an Urban Area (4973)

El Hassan El Birchi and Driss El Azzab (Morocco):
Comparing Global Geoids over Morocco Area for GNSS Altimetry Determination (5231)

Mevlut Gulü, Mustafa Yilmaz and Ibrahim Yilmaz (Turkey):
GPS for Orthometric Heights Determination of Long Lines: A Comparative Study (5115)

Nadim Dayoub (Syria), Philip Moore, Stuart Edwards and Nigel Penna (United Kingdom):
The Geoid Geopotential Value for Unification of Vertical Datums (5023)
This is a flash presentation.

TS07D – Planning and Managing Urbanization
Saturday, 21 May 11:00–12:30
Venue: Karam 2
Commission: 8
Chair: Mr. Abdelouahed Fikrat, Morocco
Rapporteur: Mr. Collins K’Owuo, Kenya

Wafula Nabutola (Kenya):
Planning and Managing Urbanization in Kenya Following the New Constitutional Dispensation Promulgated in August 2010 (5261)

Joel Chaeruka and Innocent Chirisa (Zimbabwe):
Inclusive Cities and Housing: Analysis of Stewardship Instruments in Ezwipo, Zimbabwe (4762)

Cromwell Manaloto (Italy):
The Surveyor’s Role on Urban Renewal in Small Italian City Centres (5069)

TS07E – Engineering Surveying
Saturday, 21 May 11:00–12:30
Venue: Karam 3
Commission: 6
Chair: Mr. Patrick Prendergast, Ireland
Rapporteur: Mme Shiam Boutayeb, Morocco

Edi Meier (Switzerland):
Georadar: Locating Dangerous Zones Prior to Drilling the 57 km Long Gotthard Tunnel in Switzerland (5109)

Mohamed Ouahma, Mohammed Alaoui, Tayeb Tachallait and Yassine Bahij (Morocco):
Contribution of the Surveying Operations in the Monitoring of the Tunnels: A Case Study of a Bat (5168)

Werner Stempfhuber (Germany):
High-End and Low-Cost RTK GNSS in Machine Control and Precision Farming Applications (5283)

El Hassane Ssemali, Mourad Bouziani, Hicham Oumina and Hicham Anjar (Morocco):
Contribution of GPS in the Surveying of Quarries (4926)

Mirza Dalando, Suwardi Wiyono and Bernhard Manurung (Indonesia):
Carpenter’s Level Measurement to Determine Different Height and Reference Elevation on Kelly Bushing Coal Bed Methane Well (CBM) Block SSE-03 SE PT. Medco E & P Indonesia (5097)

Jacob Ehiyoro and Christopher Izigony (Nigeria):
Measurements and Documentation for Flood and Erosion Monitoring and Control in the Niger Delta States of Nigeria (5126)
TS07F – Mobile and Asset Mapping Systems
Saturday, 21 May 11:00–12:30
Venue: Karam 4
Commission: 5 and 6
Chair: Dr. Allison Kealy, Australia
Rapporteur: Mr. Abdelhaq Bedaou, Morocco

Chantal Arguin (Canada): Introducing an Innovative 3D Intelligent Mobile Mapping System (4970)
Akhisa Imanishi, Kikuo Tachibana and Koichi Tsukahara (Japan): The Development of Accuracy Maintenance Method for Mobile Mapping System (MMS) Data at GPS Invisible Area (4982)
Moha El-ayachi, Hicham Hajji, Mohamed Bensaid and Yousen Ismaili (Morocco): Design of a Spatio-temporal Model for Cadastral Data – Case Study of Morocco (4957)
Barkan Fatima (Morocco): The Digital Territorial Management – When the Numerical Technology Reinforces the Territorial Development (5429)

TS07G – Innovative and Pro-poor Land Records and Information System
Saturday, 21 May 11:00–12:30
Venue: Karam 5
Commission: 7, 3 and GLTN
Chair: Prof. Ian Williamson, Australia
Rapporteur: Mr. Mourad Choukri, Morocco

Danilo R. Antonio (Kenya): Social Tenure Domain Model Towards Addressing the Information Requirements of Informal Settlements (5391)
Christiaan Lemmen, Harry Uitermark, Peter van Oosterom, Jaap Zevenbergen (Netherlands) and Iain Greenway (United Kingdom): The Road to a Standard for the Land Administration Domain Model (LADM), and beyond… (5121)
Jaap Zevenbergen (Netherlands) and Clarissa Augustinus (Kenya): Designing a Pro Poor Land Records System (5028)
Jacobs Meijer and Christiaan Lemmen (Netherlands): Low Cost Cadastral Data Acquisition (5262)

TS07H – Learning and Teaching Methodology
Saturday, 21 May 11:00–12:30
Venue: Reda 2
Commission: 2
Chair: Dr. Liza Groenendijk, Netherlands
Rapporteur: Mr. Gert Steinkellner, Austria

Audrey Martin (Ireland): Video Supports the Lecturing Star (5036)
Zoran Blagojevic and Dragana Lazic (Serbia): Multilingual Geodetic Dictionary in eLearning (5295)
Daberechi C Anyaoha (Nigeria): E-Learning and Student Support in Survey Profession, Nigeria (4922)

TS07I – Task Force on Surveyors and the Climate Change
Saturday, 21 May 11:00–12:30
Venue: Reda 4
Commission: Task Force on Climate Change
Chair: Prof. John Hannah, Chair, FIG Task Force on Surveyors and the Climate Change
Rapporteur: Dr. Michael Sutherland, Chair, FIG Commission 4

John Hannah, Rob Bell and Ryan Paulik (New Zealand): Auckland: A Case Study in the Regional Assessment of Long-Term Sea Level Change (4854)
This is a peer reviewed paper.

Michael Sutherland and Amit Seeram (Trinidad And Tobago): Sea Level Rise Modelling in Support of Socioeconomic Impact Analysis: Grande Riviere, Trinidad and Tobago (4921)

Oyewole Mustapha Bello (Nigeria): Responding to Global Warming Using Integrated Landuse Management in Sub-Saharan Africa (5157)

Ahmed Zeggar (Algeria): Impact of Climate and Analysis of Desertification Processes in Semi Arid Land in Algeria: Using Data of Alsat-1 and Landsat (5205)

Diego Navarra and Paul van der Molen (Netherlands): A Global Perspective on Cadastres and Geo-ICT for Sustainable Urban Governance in View of Climate Change (5398)

TS07J – Property Markets
Saturday, 21 May 11:00–12:30
Venue: Reda 5
Commission: 9
Chair: Dr. Frances Plimmer, Chair, FIG Commission 9
Rapporteur: FIG Commission 9

Malgorzata Renigier-Bilozor, Radoslaw Wisniewski and Marek Walacik (Poland): Real Estate Markets in Poland – Analysis of Subsystem Structure (4975)
This is a peer reviewed paper.


Peter Dent (United Kingdom) and Mouaiad Al-Omari (Jordan): How Land Administration Systems Determining Land Market Efficiency (5181)
This is a peer reviewed paper.

Krystyna Czarnecka (Poland): Polish Real Estate Market Recovery after Financial Crisis (5274)
Alexander Sagaydak and Anna Lukynchikova (Russia): Development of Agricultural Land Market in the Russian Federation (4778)

Catherine Kariuki and Nicky Nzioki (Kenya): Some Suggestions Towards an Efficient Land Market in Kenya (5279)
Saturday, 21 May 2011 14:00–15:30

TS08A – Surveyors and Different Ways of Service Delivery
Saturday, 21 May 14:00–15:30
Venue: Salle des Ministres
Commission: 1
Chair: Ms. Leonie Newnham, Chair, FIG Commission 1
Rapporteur: Mr. Sebti Sidhomi, Algeria

Khalid Yousfi, Aziz Hilali and El Mostafa El Batane (Morocco): The Organizational Aspects of the Surveying Engineering Profession in Morocco (5348)

TS08B – Disaster Risk Management
Saturday, 21 May 14:00–15:30
Venue: Fes 1
Commission: 7, 8 and 3
Chair: Dr. Jaap Zevenbergen, Netherlands
Rapporteur: Mr. Abdelhamid Najjari, Morocco

Rafic Khouri (France): Spatial Data for Haiti Reconstruction – The French Cadastre Project for Haiti (5188)

N. Donnelly, Mark Smith, Mack Thompson and Don Grant (New Zealand): Re-establishment of Cadstral Boundaries Following the 2010 Earthquake in Canterbury, New Zealand (4852)

Shabnam Farboud (Iran): Disaster Prevention and Preparedness Planning for Earthquake (5141)

Si Mohamed Ben Massou (Morocco): Introduction à la gestion des risques et des catastrophes (4842)

Med Boucham, Abdallah Rattal and Latifa Lakfif (Morocco): The National Program for Liquid Sanitation (NPLS) (5387)


TS08C – Spatial Data Infrastructure in Support of Climate Change Risk and Disaster Management II
Saturday, 21 May 14:00–15:30
Venue: Karam 2
Commission: 8
Chair: Prof. Mohamed Rouchdi, Morocco
Rapporteur: Mr. Kimuyu Mulinge, Kenya

Zdravko Cesarec and Zeljko Bacic (Croatia): Role of Cadastre in the Development of Regional and Local Planning Structure in Croatia (4862)

Abdelouahed Fikrat (Morocco): De l’aménagement du territoire au Développement territorial (5270)

Gülen Kara (Turkey): The Examtion of the Urban Renewal Projects – A Case Study of Trabzon, Turkey (5286)

Idriss Haddouche (Algeria), Slim Saidi (France) and Khelladi Mederal (Algeria): Remote Sensing and Dynamic Landscapes in Arid and Semi Arid Area in Algeria: Cases of the Region of NÁÈá – La télédétection et la dynamique des paysages en milieu aride et semi-aride en Algérie: Cas de la région de NÁÈá. (5196)

Dridi Hadda, Kalla Mahdi and Abbass Redha (Algeria): Modelisation de l’érosion dans le bassin de oued Reboa et son impact sur le barrage de Timjad – approche multicriteria (5190)

This is a peer reviewed paper.

TS08D – Regional and Local Structure Planning
Saturday, 21 May 14:00–15:30
Venue: Karam 1
Commission: 3
Chair: Mr. Gerhard Muggenhuber, Austria
Rapporteur: Mr. El Mostafa Tammah, Morocco

A. Bernoussi and Mena Amharref (Morocco): Disasters and Risk Management (5302)

Enrico Paringit (Philippines): The Use of Geospatial Information and the Role of Surveyors in Meeting the Challenges of Disaster Risk Reduction and Climate Change Adaptation: The Case of the Archipelagic Nation the Philippines (5136)

This is a peer reviewed paper.

Mostafa Telgerdi and Alireza Telgerdi (Iran): Using GIS Improves the Productivity and Reliability of Supply Chain in Preparation for Disasters (5166)

Arif Cagdas Aydınoglu, Eflu Demir and Tahsin Yomralıoğlu (Turkey): An Approach to Use Geo-Information Effectively in Disaster & Emergency Management Activities in Turkey (5354)

Hassan Tabyaoui, AbdelAli Chaouni and Fatima El Hammich (Morocco): Application of GIS Technique for Solid Waste Selection and Protecting the Environment: Case Study of Taza, Morocco (5350)

TS08E – Engineering Surveying – Equipment
Saturday, 21 May 14:00–15:30
Venue: Karam 4
Commission: 6
Chair: Dr. Maria Joao Henriques, Portugal
Rapporteur: Prof. Gethin Roberts, UK

Mazher Choudhury and Chris Rizos (Australia): Test Results of Locata Technology for Deformation Monitoring (4928)

This is a peer reviewed paper.

Olurope Ogundipe and Gethin Roberts (United Kingdom): Antenna Selection for Bridge Deformation Monitoring – Comparison of Multipath Mitigation Characteristics for Three Types of Antennas (5238)

Alain De Wulf, Denis Constales, Jessica Meskens, Timothy Nuttens and Cornelis Stal (Belgium): Procedure for Analyzing Geometrical Characteristics of an EDM Calibration Bench (5266)

Jelenka Gučeveci, Sinisa Delcevi and Vukan Ogrižovici (Serbia): Determining Temperature Dependence of Collimation Error of Digital Level Leica DNA 03 (4993)

This is a peer reviewed paper.

Cornelis Stal, Philippe De Maeyer, Alain De Wulf, Rudi Goossens and Timothy Nuttens (Belgium): Comparison of Geometric and Radiometric Information from Photogrammetry and Color-enriched Laser Scanning (5276)

Denis Burenkov, Andrey Polyanisky, Yuriy Pupkov and Petr Murzinev (Russia): The Research of Precision Characteristics of Internal Electronic Level API Laser Tracker 3 (4779)

This is a flash presentation.

TS08F – Adjustment and Coordinate Transformation
Saturday, 21 May 14:00–15:30
Venue: Karam 3
Commission: 5
Chair: Prof. Moha Elayachi, Morocco
Rapporteur: Dr. David Martin, France

Gomaa Dawod, Meraj Mirza and Khalid Al-Ghamdi (Saudi Arabia): Simple Precise Coordinates Transformations for Geomatics Applications in Makkah Metropolitan Area, Saudi Arabia (4953)

This is a peer reviewed paper.

Laszlo Banyai (Hungary): Rigorous 3D Integrated Adjustment of GPS Baselines, Geodetic Total Station and Levelling Measurements (5363)

Moha El-ayachi (Morocco): A New Didactical Mechanism to Understand Map Projections (4980)

NOTE: Simultaneous interpretation is provided in sessions in rooms Salle des Ministres and Fes 1.
TS08G – Taxation and Compulsory Purchase
Saturday, 21 May 14:00–15:30
Venue: Karam 5
Commission: 9
Chair: Dr. Frances Plimmer, Chair, FIG Commission 9
Rapporteur: FIG Commission 9
Marek Walacik and Sabina Zróbek (Poland): Comparative Study on International Compulsory Purchase Compensation Solutions in Accordance to FAO Principles of Equity and Equivalence (4799)
This is a peer reviewed paper.

Frances Plimmer and William J McCluskey (United Kingdom): Sustainability and Property Taxation (4869)
This is a peer reviewed paper.

Rene Gudat (Germany): Going West or Going East – Fundamental Changes in the German Property Tax System (5026)
This is a peer reviewed paper.

Craig Harris (New Zealand): Return of State Land in New Zealand – Offer Back and Treaty Claim Settlements (5222)

Belachew Yirsaw (Ethiopia): Expropriation, Valuation and Compensation Practice in the Amhara National Regional State (ANRS) – The Case of Two Cities (Bahir-Dar and Gonder) (5399)

TS08H – Marketing and Management of Professional Survey Education
Saturday, 21 May 14:00–15:30
Venue: Reda 2
Commission: 2
Chair: Ms Chris McAlister, Australia
Rapporteur: Dr. Marina Vaskovich, Sweden
Helen Murray-O’Connor (Ireland): What is Geomatics? An Evolving Discipline Requires Innovative Methods to Raise Awareness (5210)

Annick Jaton (Canada): Bridging the Gap between Academic, Government and Private Sectors to Recruit the Next Generations of Land Surveyors and Geomatics Engineers – A Success Story in Quebec, Canada (5301)

Garfield Young, Martin Smith and Roger Murphy (United Kingdom): Marking Surveying Education Relevant (4833)

Benedicta Ugwulebo (Nigeria): Female Gender in Professional Education (Nigeria) (4918)

TS08I – GNSS Processing and Analysis
Saturday, 21 May 14:00–15:30
Venue: Reda 4
Commission: 5
Chair: Prof. Rachid Azzouzi, Morocco
Rapporteur: Mr. Graeme Blick, New Zealand
Seyit Ali Yilmaz (Turkey): Improvement of Ellipsoidal Heights with Atmospherial Data Calculated from GNSS Data (5203)

Sefa Yalvac and Aydin Ustun (Turkey): Adaptive Filtering of Multipath Effect on Pseudo-range Measurements (5101)

Sofiane Khelifa, Salem Kahlouche and Mohamed Faouzi Belbachir (Algeria): Application of Wavelet Analysis to GPS Stations Coordinate Time Series (5095)

Hasan Jamil (Malaysia): GNSS Heighting and Its Potential Use in Malaysia (5410)

Mir Radia, Kahlouche Salem and Touam Said (Algeria): Investigation of Deformations in North of Algeria with GPS Data and Kinematic Model (4834) This is a flash presentation.

TS08J – Marine/Coastal Modelling and Technology
Saturday, 21 May 14:00–15:30
Venue: Reda 5
Commission: 4
Chair: Mme. Najlaa Diouri, Morocco
Rapporteur: Dr. Volker Boederi, Germany
Dexter Davis, Cassandra Nanial and Michael Sutherland (Trinidad And Tobago): Towards the Development of a Methodology for Vertical Separation Models in the Caribbean (5246)

Satheesh Gopi, Eman Ahmed Al khatibi Al falasi, Mustafa Mohammed Baqer and Kumar Subbaraju Renati (United Arab Emirates): Establishing and Updating Vertical Datum for Land and Hydrographic Surveying in Dubai Emirate (5058)

Shabnam Farboud (Iran): Determination of Accurate Sea Border Lines of Countries (5136)

Hyun Sook Lee and Man Seung Cho (Republic of Korea): A Comparative Study on Marine Spatial Management between China and South Korea (5258)

Agustín Molina García, César García Aranda and Mª Blanca González San Martín (Spain): A Comparative Analysis of Capabilities and Limitations of Collected Systems of Hydrographic Marine Data (5288)
**TS09A – Alternatives and Backups to GNSS**
Saturday, 21 May 16:00–17:30
Venue: Salle des Ministres Commission: 5 and 6
Chair: Dr. Sarkis Fadous, Lebanon
Rapporteur: Dr. Charles Toth, USA

**TS09B – Land Reform**
Saturday, 21 May 16:00–17:30
Venue: Fes 1 Commission: 7
Chair: Mr. Kees de Zeeuw, Netherlands
Rapporteur: Mr. Ahmed El Bouari, Morocco

**Bruno Razza** (Italy): The “Building Works Culture” of the Modern Society, through the day-to-day Work of the Building Surveyor – Constant Updating of Building Register (5062)

Jouni Johannes Anttonen (Finland): Multi-Donor Efforts for Improving Land Administration Systems in Developing Countries: Lessons Learnt from the Cambodian Land Management and Administration Project (LMAP) (5367)

**Ji-yeon Jeong, Jong-ho Lee, Hee-chang Kwak, Yong-ho Lee and Jong-dae Jeong** (Republic of Korea): An Approach to Real Estate Information Unification (4948)

**Dimo Todorovski** (Macedonia, FYROM): Characteristics of Post-conflict Land Administration with Focus on the Status of Land Records in Such Environment (5016)

**This is a peer reviewed paper.**

**Muhammad Bashar Nuhu** (Nigeria): Land Reform in Nigeria and Global Agenda: The Nigerian Institution of Estate Surveyors and Valuers Perspective – Challenges and Prospects (5321)

**Ivan Sivtsov** (Russia): Land Reform in Russia: Results and Prospects (5418)

**This is a flash presentation.**

**TS09C – Spatial Information Processing II**
Saturday, 21 May 16:00–17:30
Venue: Karam 1 Commission: 3
Chair: Mr. Guyula Ivan, Hungary
Rapporteur: Mr. Tarik Ouroudai, Morocco

**Rudiney Pereira** and **Ana Benedetti** (Brazil): Dynamic Modeling for Changes Simulations in the Forest Cover Rio Grande do Sul State, Brazil (5116)

**Dursun Zafer Seker, T. Murat Celikoyan, Sinai Kaya, Emin Ozgur Avsar and Elf Sertel** (Turkey): Investigation Landuse Changes in Megacity Istanbul between the Years 1903–2010 by Using Different Types of Spatial Data (5183)

Mr. Aydar, Umut (Turkey)

**Oludayo Emmanuel Abiodun, James Bolarinwa Olaleye, Andrew Miremadi Dokai and Adedayo Kazeem Odunaiya** (Nigeria): Land Use Change Analysis in Lagos State from 1984 to 2005 (5142)

**Njike Chigbu** (Nigeria): Analysis of Landuse and Land-cover Changes of Aba Urban Using Medium Resolution Satellite Imagery (5151)

**Mudher Abdullah** (Iraq): Catchment Area Delineation Using GIS technique for Bekhima Dam (5335)

**Ajay K Singh and S. S. Singh** (India): Forest Vegetation Analysis and Land Cover Assessment in Tan Sub Watershed of Hasdeo River Basin, Chhattisgarh, India (5103)

**TS09D – Public Private Partnerships in Planning and Land Development II**
Saturday, 21 May 16:00–17:30
Venue: Karam 2 Commission: 8
Chair: Mr. Enrico Rispoli, Italy
Rapporteur: Mr. Lahoussaine Ragtaouli, Morocco

**Hakan Senol Kutoğlu, Kurtulus Sedar Gormus, Murat Oruc, Sayim Ongel and Simsek Safak** (Turkey): An Investigation of Coastal Zone Change on the Zonguldak Hard Coal Basin Depending on Developing Industry since over a Century (5123)

**Antonio Sica** (Italy): République du Madagascar, de la Région de Tulear, de la forêt Miéka, je projette GIS pour 150000 hectares pour la détermination des aires sans forêt, de installer avec des espèces autochtones déjà présentes en mode spontanée comme la Jatropha Curcas (4846)

**Mara Morbin** (Italy): Oasis Water Project – Water Care for Life (5072)

**Ponn Virultrak** (Thailand): Parking Variance: New Legal Paradigm for Bangkok Hotel Development (4870)

**This is a peer reviewed paper.**

**TS09E – Engineering Surveying – Software**
Saturday, 21 May 16:00–17:30
Venue: Karam 3 Commission: 6
Chair: Prof. Hicham Haji, Morocco
Rapporteur: Prof. Gethin Roberts, Chair, FIG Commission 6

**Jana Halickova** and **Alojz Kopacik** (Slovenia): Automated Model Creation from TLS Data (4848)

**Christian Manthe** (Germany): Plane Based Free Stationing (5118)

**Ioan Stoian, Virgil Olaru and Nicusor Baroiu** (Romania): Making Landslides Risk Maps as Monitoring Systems of the Phenomenon Based on Precision Geodesic Measurements (5160)

**Shahrbanu Firuzi, Mohammad Bager Sharifi, Kambiz Borna and Mohammadreza Rajabi** (Iran): Using Empirical Relationships and Neural Network in GIS for Developed Rainfall runoff Modeling (5264)

**TS09F – Land Rights Infrastructure**
Saturday, 21 May 16:00–17:30
Venue: Karam 4 Commission: 7
Chair: Mr. Andras Ossko, Hungary
Rapporteur: Prof. Tayeb Tachtallait, Morocco

**Danilo Antonio** (Philippines): Questioning the Century-Old Paradigm – Securing Land Rights in the Philippines (5379)

**Francis Roy** (Canada): Building Public Confidence towards Cadastral Systems (4991)

**Thaer Shunnar and Michael Barry** (Canada): Tracking Fraudulent Activities in Real Estate Transactions (4995)

**Sebastian Kropp** and **Theo Köttler** (Germany): Real Estate Transactions in the Digital Age (5085)

**Henri Nubukpo** (Togo): Needs for a Land Rights Infrastructure in Togo – Besoins pour une infrastructure foncière au Togo (5092)

**Okan Yildiz** and **Cemal Biyik** (Turkey): Analysis of Turkish Cadastre in Terms of Multipurpose Cadastre (5001)
TS09G – Surveying History
Saturday, 21 May 16:00–17:30
Venue: Karam 5
Commission: History
Chair: Mr. John Brock, Australia
Rapporteur: Mr. Alain Wright, United Kingdom

John Brock (Australia): Surveyor-General and Registrar-General of Upper Egypt in the XVIIIth Dynasty of New Kingdom Egypt – Rekhmire (c.1400–1340 B.C.) (4916)

Maria Luisa Palanques and Miguel Calvo (Spain): Cartography, Cadastre and Surveying and the Development of Cities during the Nineteenth Century in Spain (5029)

Ana Roque and Paula Santos (Portugal): History, Cartography and Science: The Present Day Importance of Mapping of Mozambique in the 19th Century (5030)

Adam Lyszkowicz and Marcin Uradzinski (Poland): The Four Century of Polish Books for Land Surveying (5090)

This is a flash presentation.

Carlos Alfredo Rodriguez Rojas, Julio Hernan Bonilla Romero and Nino Niño Edilberto (Colombia): Topography and Astronomy in Community Muisca, Colombia (5323)

TS09H – Accreditation and Quality Assurance
Saturday, 21 May 16:00–17:30
Venue: Reda 2
Commission: 2
Chair: Dr. Tim Goodhead, United Kingdom
Rapporteur: Dr. Gary Jeffress, USA

Tim Goodhead (United Kingdom): Accreditation and Quality Assurance – Mobility of Surveyors across International Professional Institutions (4976)

K Chan (Hong Kong SAR, China): Assessing the Gap in Higher Education Reform for Property and Construction (5013)

Siddique Motala (South Africa): Constructive Alignment of an Introductory University Geographic Information Systems Course (4872)

This is a peer reviewed paper.

Laila El Abbadi, Aboubakr Bouyad and Mohamed Lamrini (Morocco): International Quality Assurance Systems in Higher Education vs. the Moroccan Quality Assurance System (4909)

Amara Otmahi (Algeria): Review of Quality Assurance in Higher Education (4964)

This is a flash presentation.

TS09I – Cadastral Reform
Saturday, 21 May 16:00–17:30
Venue: Reda 4
Commission: 7
Chair: Mr. Daniel Roberge, Chair, FIG Commission 7
Rapporteur: Mr. Farid Moussaide, Morocco

Stojanka Brankovic, Ivana Stankovic and Novad Tesla (Serbia): Quality Improvement of the Real Estate Cadastre in Serbia (4892)

Hasan Cagla, Sabahattin Akkus, Erhan Civik and Ibrahim Ozugur (Turkey): Konya Example of Cadastral Renovation Work in Turkey (4867)

Ömür Engin Demirkol (Turkey), Murat Meha (Kosovo), Sinan Üzümci, Coşkun Demir (Turkey) and Vselaj Besmir (Kosovo): Prizren Cadastral Zone Cadastre Reconstruction Project and Benefits (4810)

Eng Millot Lubishtani

Şaban İnam, Mehmet Ertas, Sükrün Yalıçır, Aslı and Başaran (Turkey): Identification of the Characteristics of the Immovable estate Cadastre in Serbia (5039)

Kim Jae-Myeong, Kwon Il-Hyuk and Choi Yun-Soo (Republic of Korea): Study on Cadastral Re-Investigation Based on Conflict Model: A Case of the Korean Cadastral Resurvey Project (5252)

This is a flash presentation.

TS09J – Valuations CAMA (Computer Assisted Mass Appraisal) II
Saturday, 21 May 16:00–17:30
Venue: Reda 5
Commission: 9 and 7
Chair: Mr. Marc Vanderschueren, Belgium
Rapporteur: Mr. Ali Ait Mhamed, Morocco

Francis Gabele (Belgium): Identification of the Characteristics of the Immovable Estate Submitted to a Valuation – Identification des caractéristiques des immeubles lors d’évaluation foncière (5055)

Raymond Gheldof (Belgium): Immovable Transparency by an Area Measures Code (Part 1) – Transparence en immobilier par un code de mesurage de surfaces (Partie 1) (5067)

Gérard Rouleau (France): The Area Measures Code for the Building Immovable – Le code de mesurage des surfaces applicable aux immeubles bâtis (5071)

El Hassane Semlali, Essaid Bajja, Lahsen Elmoutaoufi and My Abdelslam Adad (Morocco): Experimentation of a New Approach of Expertise of Real Estate Properties to Evaluate the Venal Values of Moroccan Habitats (5178)

Closing Ceremony of the 6th National Congress of ONIGT
Saturday, 21 May 17:30–18:30
Venue: Salle des Ministres
Commission: All participants
Chair: Mr. Aziz Hilali, ONIGT President
Co-chair: Mr. CheeHai Teo, FIG President

Conference Dinner
Saturday, 21 May 20:00–23:00
Venue: Le Pacha Restaurant
Farewell Reception – Welcome to FIG 2012 in Rome
Sunday, 22 May 16:00–17:00
Venue: Foyer outside Salle Royale, Palais des Congrès
– Farewell Reception hosted by CNNGL from Italy
– Reception will follow immediately after the Closing Ceremony

Presidents Meeting
Sunday, 22 May 08:30–10:30
Venue: Fes 1
Commission: Presidents of FIG members
Chair: Mr. CheeHai Teo, FIG President
– For Presidents of FIG member associations

FIG General Assembly II
Sunday, 22 May 11:00–12:30
Venue: Salle Royale
Commission: FIG members
– FIG members
– Open for observers

FIG General Assembly II / Closing Ceremony
Sunday, 22 May 14:00–16:00
Venue: Salle Royale
Level -1

Registration
- Espace ASNI 2 (Level 0)

Plenary Sessions / Opening Ceremony / Technical Sessions
- Salle des Ministres (Levels -1, 0 & 1)

Technical Sessions
- Salle Karam 1–5, Salle Reda 2, 4, 5 (Level -1), Salle Fes 1 (Level 1)

Special Forums: Salle Fes 2 (Level 1)

Speakers Preparation Room: Salle Reda 3

FIG General Assembly II, Farewell Reception
- Salle Royale (Level 0)

Commission Meeting Rooms: MR 1–5 (Level 0)

FIG Office: ASNI 1 / FIG President: Fes 1A

ONIGT Office: AGDAL 1 / ONIGT President: Fes 2A

Exhibition: Level 0

NOTE: Simultaneous interpretation is provided in sessions in rooms Salle des Ministres and Fes 1.