



CALL FOR PAPERS TO

FIG WORKING WEEK 2016

Christchurch, New Zealand, 2-6 May 2016

The overall theme of the Working Week is “Recovery from disaster”.

FIG Working Week 2016 is the main event of the year for all ten FIG technical Commissions. Therefore proposals for papers are requested in all topics of interest of the following Commissions:

- Professional Standards and Practice – FIG Commission 1
- Professional Education – FIG Commission 2
- Spatial Information Management – FIG Commission 3
- Hydrography – FIG Commission 4
- Positioning and Measurement – FIG Commission 5
- Engineering Surveys – FIG Commission 6
- Cadastre and Land Management – FIG Commission 7
- Spatial Planning and Development – FIG Commission 8
- Valuation and the Management of Real Estate – FIG Commission 9
- Construction Economics and Management – FIG Commission 10

This Call for Papers is announced both for **peer review** papers and **non-peer review** papers.

We invite you to submit an abstract and full paper for **peer review paper by 1 October 2015** and an abstract for non-peer-review paper by **15 November 2015**.

More information on the FIG Congress web site:
www.fig.net/fig2016

rebound



regeneration



rescue



FIG Working Week 2016

CHRISTCHURCH, NEW ZEALAND
2-6 May 2016



Recovery
from disaster

CALL FOR PAPERS TO

THE FIG WORKING WEEK 2016

Christchurch, New Zealand, 2-6 May 2016
at Horncastle Arena and Addington Raceway

Recovery from Disaster

Dear Friend and Colleague,

It is our privilege and honour to invite you to the **FIG Working Week 2016** to be held from **2 to 6 May 2016**. The Working Week is hosted by the International Federation of Surveyors, FIG and the New Zealand Institute of Surveyors, NZIS, as the local host. The FIG Working Week 2016 will be hosted in Christchurch, New Zealand at the Addington Events Centre (Horncastle Arena) and the Addington Raceway.

Post-earthquake Christchurch is an ideal venue for an international surveying conference with the theme "**Recovery from Disaster**". It is being held at a time when considerable re-building and renewal is underway throughout the city and the areas of Canterbury affected by the 2010-2011 earthquakes sequence. Many inhabitants throughout the World face various kinds of disasters, apart from earthquakes as in Christchurch, such as flooding, storm events, tsunamis, drought, the after effects of conflict etc. that are a world-wide challenge, especially taking the effects of climate change into consideration. Disasters, natural or otherwise, directly impact surveyors and spatial professionals and their work on the land, under the seas, in the air and in space.

The FIG Working Week 2016 has wide support within Christchurch and throughout New Zealand with a commitment already pledged by the Christchurch City Council and Land Information New Zealand; New Zealand's government department responsible for land titles, geodetic and cadastral survey systems, topographic information, hydrographic information, managing Crown property and a variety of other functions.

The academic community and private practitioners are also committed to the FIG Working Week 2016, which expects to attract between 700-900 local and international delegates.

The FIG Working Week 2016 will appeal not only to the wider surveying profession as represented by the ten FIG Commissions but also the broader spatial sciences industry

including cartographers, remote sensing and photogrammetric professionals, those involved with GIS systems and location based services. Instrument manufacturers, including GNSS, and software application specialists will also benefit from being involved with this major international event.

The carefully prepared Technical Programme will focus on aspects of the theme of Recovery from Disaster in a variety of international contexts and will offer both specially invited high profile presentations and papers that are selected through the open call for papers procedure. The Call for Papers is open for both **peer review** and **non-peer review** submissions.

More information on the FIG Congress web site: www.fig.net/fig2016

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Papers are also invited on the areas of the three FIG Networks:

1. FIG Standard Network
2. Regional Capacity Development Network
3. FIG Young Surveyors Network would like to see contributions from young surveyors in all 10 Commissions

In addition papers are also invited for the Permanent Institution of FIG: History of Surveying and Measurement.

SPECIFIC TOPICS OF FIG WORKING WEEK

In the open call for papers **non-peer review** and **peer review** papers are invited from the following **detailed topics** selected by FIG Commissions:

COMMISSION 1 – PROFESSIONAL STANDARDS AND PRACTICE

- Professional ethics
- International boundaries
- Women in Surveying
- Mutual recognition of qualifications or professional status

COMMISSION 2 – PROFESSIONAL EDUCATION

- Recovery from Disaster: enhancing the surveying core body of knowledge
- Professional education in natural hazards and disaster management
- Innovative learning and teaching
- Demand for and supply of Professional Education
- Accreditation and Quality Assurance

COMMISSION 3 – SPATIAL INFORMATION MANAGEMENT (SIM)

- VGI collection, dissemination, analysis, maintenance and visualization
- Utilization of VGI and crowdsourcing with SDI, SIM and environmental information
- 3d Cadastre
- Spatial Data Infrastructure (SDI) at all levels – local, regional, national and global
- e-Governance and SDI in supporting decision making – theory, applications and best practice
- Integration of spatial data – cadastre, land use, real estate, utilities, environment, socio-economic information, etc.
- 3D/4D geospatial models, algorithms, standards and applications
- Business models, public-private partnerships and economic aspects of SDI
- SIM meeting challenges – natural and environmental risk prevention and disaster management, waste management, etc.
- SDI interoperability aspects – standards, technical tools, metadata, portals and clearinghouses
- Web and mobile GIS – challenges, services and real-time capabilities
- Geospatial visualisation (2D/3D/4D)
- Use of SIM to support:
 - Prevention and recovery from natural disasters;
 - Rural and urban land reforms for food and fresh water security and environmental protection
 - Measures to eliminate and to adapt to the climate change.

COMMISSION 4 - HYDROGRAPHY

- Hydrography and society (Offshore surveying in support of energy, environment, submarine telecommunications, coastal zone management and climate change,

ports and harbours, the blue economy, national and international political objectives)

- Hydrographic education, training, and professional development
- Hydrographic standards and guidelines
- Hydrographic surveying and mapping
- Maritime and marine spatial information management (including data processing and management of hydrographic data, data structures, marine spatial data infrastructures, marine information systems)
- Military hydrography
- New and emerging science and technologies for hydrography (e.g. sensors, systems, AUVs, electromagnetic wave propagation, crowd sourcing techniques/citizen science etc.)

COMMISSION 5 – POSITIONING AND MEASUREMENT

- Standards, best practice guidelines, quality assurance and calibration for surveying (including geodetic) measuring instruments
- Guide for the Expression of Uncertainty in Measurements (GUM) in surveying/geodesy
- Reference frames/datums supporting recovery from disaster
- Remote sensing and reference frame/datum management
- National reference frames in a globally connected world, Reference frames for the future
- Geoid Based Vertical Reference Frames and Height Systems
- Vertical Reference Frame (Datum) Transformations
- Infrastructure supporting accurate positioning
- Multi-GNSS: Emerging Technologies and Applications
- GNSS Precise Positioning Techniques, Developments and Analysis
- Atmospheric Measurements using GNSS
- GNSS Applications in Disaster Management
- Low-cost GNSS equipment
- Cost-effective surveying solutions
- Alternatives and backups to GNSS including map matching, cooperative positioning and 3D modeling techniques
- Urban and Indoor Positioning and Navigation
- Multisensor Positioning Applications and Techniques
- Technologies Positioning technologies and techniques in support of Location Based Service

Special Session on

- Contribution of Geodesy to Disaster Management

COMMISSION 6 – ENGINEERING SURVEYS

- Deformation measurement
- Engineering surveys in managing natural disasters
- Precise height measurements for engineering
- Recent industrial surveying and sensing technologies and applications

- Laser scanning applications
- Machine control and guidance with surveying technologies

COMMISSION 7 – CADASTRE AND LAND MANAGEMENT

- Fit-For-Purpose Land Administration in pre- and post-conflict and post disaster areas
- impact of climate change and disasters on land rights and to cadastral systems
- spatial data infrastructures for pre-, during and post-disaster response
- drones and other technologies for land administration before, during and after disasters / validation of third party data
- voluntary guidelines in conflicts
- capacity building in disaster response bodies
- public trust in land administration systems / fraud prevention in disaster management
- land policy and reform to support sustainable use of land
- compensation for value changes, consolidation of agricultural land, adjustment of urban land in post disaster regions
- new technologies for remote and in-situ data acquisition on land rights / social media and third party data capture / crowdsourcing
- role of land owner as key stakeholder / privacy issues / access to data for citizen
- multi-dimensional and multi-temporal cadastre

COMMISSION 8 – SPATIAL PLANNING AND DEVELOPMENT

- Environmental challenges in megacities
- Planning urban resilience in adapting to heat, drought, flood, earthquake, and major environmental disaster
- Land Use planning for sustainable integrated urban and rural development and governance
- Innovative management practices to prevent, or mitigate the risks of extreme events e.g. droughts and floods, and disaster recovery techniques from the perspective of the rural or the urban environments
- Disaster and environmental management
- Planning policies and environmental improvement
- Informal settlement issues in spatial development, planning and governance
- Planning and managing urbanisation
- Public-private partnerships in planning and land development
- Contributing to Global water resource management and utilization – Action and planning
- Spatial planning in post-disaster and post-conflict situations
- Spatial planning, land registration and valuation in informality

COMMISSION 9 – VALUATION AND THE MANAGEMENT OF REAL ESTATE

- Tax Bases for Real Estate Taxation
- Mass Appraisal Techniques
- Large Scale Acquisitions of Land (“Land Grab”)

- Trends of real estate valuation
- Valuation methods for properties where no markets exist for them
- Valuation profession and valuation standards
- Real estate finances and investments
- Compulsory purchase and compensations in land acquisition and takings
- Real property practises and sustainable cities

COMMISSION 10 – CONSTRUCTION ECONOMICS AND MANAGEMENT

- Quantity Surveying, Cost Engineering, Construction Economics and Cost Management
- Project Delivery and Construction Management
- Project Procurement and Tendering (Bidding)
- BIM - Building Information Modelling
- Construction standards and regulations including proposed International Construction Measurement Standards (ICMS)
- Construction outputs and construction trend and its impact on national and global economy
- Innovative house building and affordable housing
- Sustainable construction and development including the measurement of carbon emission in construction activities
- Reconstruction works in major disaster areas

SUBMISSION OF PROPOSALS

This **Call for Papers** is announced both for **peer review papers** and **non-peer review papers**. The submission of abstracts will be in English.

PLEASE NOTE

- When submitting your abstract the number of abstracts is limited to a **maximum of one per author**. Further, an author can only once be a co-author in another abstract. It means an author can only be involved in two abstracts, once as first author and once as co-author.
- One abstract can be linked to a maximum of three Commissions and that the Commissions involved has to be prioritized.

NON-PEER REVIEW – SUBMISSION OF ABSTRACTS

We invite you to submit an abstract for the FIG Working Week by **15 November 2015**. The abstract shall not exceed 250 to 500 words in length describing the objectives, results, conclusions and significance of your work. The abstract shall include the names and affiliations of all authors. Please feel free to submit an abstract on any topic related to the specific topics of FIG 2016. You can submit your abstract for “regular” or “short” oral presentation. A regular presentation is a 10-15 minutes presentation whereas a short means a 5 minute presentation of your topic.

All abstracts shall be submitted **online** to FIG on the following web site:

www.fig.net/fig2016/submission.htm.

Please note the deadline **15 February 2015** for submitting the full paper. For other important deadlines see **important dates**.

PEER REVIEW – SUBMISSION OF FULL PAPERS

If you want to present a peer review paper at the FIG Working Week 2016 you shall submit your **full paper** by **1 October 2015**. When preparing the paper, please follow the guidelines prepared for papers (**paper guidelines** and the specific **paper template** for FIG Working Week 2016 that are available on the conference web site, www.fig.net/fig2016). Please feel free to submit a paper on any topic related to the specific topics of FIG 2016.

Before sending the abstract and full paper, please read the **FIG guidelines for peer review papers** http://www.fig.net/fig2016/presenter_practicalities.htm. The peer review process is double blind and deadlines for different steps can be seen below under **important dates**.

Important: In addition to submitting the full paper, you shall also submit an abstract of your paper **online** to FIG database no later than **1 October 2015** on the following web site: www.fig.net/fig2016/submission.htm. Please mark *“This abstract is submitted for peer review”*.

Receipt of your abstract and paper will be acknowledged electronically according to the time schedules.

Full papers shall be submitted in **electronic format** to International Federation of Surveyors by email to fig@fig.net.

If you have problems emailing the paper you can contact FIG for assistance at fig@fig.net.

Please include at the end of your paper all your contact details, including your name, address, phone and fax numbers and email address. In the conference programme a paper that has been accepted by the peer review process will be marked *“This is a peer reviewed paper”*. Papers that are not accepted by the peer review process can be offered to the conference as non peer reviewed papers.

When submitting a paper the author(s) agree that FIG has the right to publish the paper in the conference proceedings (at the conference and on the FIG web site); in the FIG Surveyors Reference Library; and in the FIG online journal (if selected for this purpose) without any further agreement or compensation. The copyright of the paper remains by the author(s).

The number of papers for peer review is limited to **a maximum of one paper** per author.

FURTHER INFORMATION

For any information see the conference web site: www.fig.net/fig2016.

All abstracts and papers have to be submitted in English. Please note that if you have submitted a paper that is accepted for oral presentation you must register for the conference before 8 February 2016, or your presentation will otherwise not be included in the technical programme.

Any inquiries on call for papers, abstracts, peer review process and technical programme, please contact the FIG Office (Email: fig@fig.net, tel +45 3886 1081).

We look forward to meeting you in Christchurch in May 2016.

Yours sincerely,

Simon Ironside
Co-Conference Director/NZIS

Louise Friis-Hansen
Co-Conference Director/FIG

IMPORTANT DATES

Deadlines for submitting abstracts, papers and registration are:

Non Peer Reviewed Papers

Peer Reviewed Papers

15 November 2015

Deadline for authors to submit non peer reviewed **abstracts**.

1 October 2015

Deadline for authors to submit **full papers** for peer review.

20 January 2016

Confirmation to authors of acceptance of non peer reviewed **abstracts**.

10 December 2015

First notification to authors of acceptance of peer reviewed papers.
For accepted papers, authors will also be notified of any modifications required by the reviewers.
Authors of papers not accepted for peer review will be offered to convert the paper to the non peer review process.

4 January 2016

Deadline for authors to submit revised **full paper** for 2nd round of peer review (depending on proposed corrections from reviewers).

1 February 2016

Second notification to authors of acceptance of peer reviewed papers with the possibility of further modifications from the 2nd round of peer review.

All Papers (peer reviewed and non peer reviewed)

8 February 2016

Early bird registration closes
Deadline for all authors to register.

15 February 2016

Deadline for all authors to submit **Full Papers**.

1 March 2016

First draft of the technical programme will be published on the web.

2 April 2016

Deadline for normal registration.

2-6 May 2016

FIG WORKING WEEK 2016 – CHRISTCHURCH, NEW ZEALAND