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# CALL FOR PAPERS TO

## THE FIG WORKING WEEK 2015

Sofia, Bulgaria, 17–21 May 2015

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The overall theme of the Working Week is  
“From the Wisdom of the Ages to the Challenges of the Modern World”.

FIG Working Week 2015 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:

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

Papers are also invited for the Permanent Institution of FIG: History of Surveying and Measurement

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

We invite you to submit abstract and full paper for **peer review paper by 20 October 2014** and abstract for non-peer-review paper by **15 November 2014**.

More information on the FIG Congress web site: [www.fig.net/fig2015](http://www.fig.net/fig2015)



Dear colleagues,

I cordially invite you to participate in our 2015 FIG Working Week in Sofia, Bulgaria. This is the first Working Week, and the 37th General Assembly under the newly elected FIG Council and Commission Chairs. It will be jointly organized by FIG and the Chamber of Graduated Surveyors of Bulgaria and it will be supported by all relevant local major sectors, such as the academia, the government and the private practitioners.

At this event we expect around 800 participants from all over the world. The National Palace of Culture is an excellent venue and our Bulgarian colleagues are experienced professionals and great hosts. They already had the leadership of FIG many years ago and have successfully organized several memorable international events, the FIG Congress in 1983 and FIG Commission workshops.

The FIG Working Week 2015 in Sofia is an important event as the implementation of the new FIG Work Plan will be presented and broadly introduced at all levels of the FIG structure. I wish all our participants to be aware of this four-year plan and of its specific goals, and I encourage all to contribute to the achievement of those goals in terms of international professional cooperation for the advancement of experience, knowledge, research, education, good governance and capacity building in our profession. This event will be an excellent opportunity for our participants to identify a concrete role in the implementation of this work plan through an active contribution to the FIG Commission activities. In this regard, I have special expectations for the role of young surveyors.

The selected theme of the conference is "*From the wisdom of ages to the challenges of modern world*". Through the centuries, the past and the recent history, a great deal of experience has been accumulated in the field of land and resources management in this region. It will be of significant interest for all of us to share this experience and the lessons learnt and through our collective expertise and the new technological developments to identify solutions for a better future.

I encourage all who have an interest in surveying to participate actively as I am sure that this Working Week will prove to be highly successful and rewarding for all. With great enthusiasm I look forward to welcoming you in Sofia in May, 2015.

Chryssy A Potsiou  
FIG President Elect



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# CALL FOR PAPERS TO

## THE FIG WORKING WEEK 2015

Sofia, Bulgaria, 17–21 May 2015

at the National Palace of Culture – Congress Centre Sofia

From the Wisdom of the Ages to the Challenges of the Modern World

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Dear Friend and Colleague,

It is our privilege and honour to invite you to the **FIG Working Week 2015** to be held from **17 to 21 May 2015**. The Working Week is hosted by the International Federation of Surveyors, FIG and the Chamber of Graduated Surveyors, Bulgaria as the local host. 2015 FIG Working Week is locally supported by the University of Architecture, Civil Engineering and Geodesy, the Geodesy, Cartography and Cadastre Agency, the Union of Surveyors and Land Managers in Bulgaria (a member of FIG) and the Association of Topographical Companies; internationally by various FIG partners and UN bodies.

The overall theme of the Working Week is “**From the Wisdom of the Ages to the Challenges of the Modern World**”. Bulgaria is an ancient country with a rich story and heritage of the ages. Bulgaria is located at strategic crossroads and its capital Sofia has a very rich and ancient history. Sofia (Serdika was the ancient name of the city, later Sredets and now Sofia – which means city of God's wisdom) has been a cultural center since the time of the Thracians, the Roman Empire, The East Roman Empire – Byzantium and the Bulgarian kingdoms. Lessons of the history may help us strive to make the world better, more comradely and more friendly, parallel with development and advance of modern technology.

The carefully prepared Technical Programme 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.

FIG Working Week will gather international practitioners and academics from all disciplines within the surveying, geospatial, natural and built environment professions (land surveying, land administration and management, land and real property appraisals, spatial sciences, spatial planning and development, positioning and measurement, engineering surveying, hydrography, environmental and green building and cost, construction and project management). FIG Working Week will furthermore reveal the new work plans for the new FIG Council as well as all 10 FIG Commissions for the term 2015-2018.

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FIG Working Week 2015  
Sofia, Bulgaria 17-21 May 2015  
Call for papers  
[www.fig.net/fig2015](http://www.fig.net/fig2015)

More information on the FIG Congress web site: [www.fig.net/fig2015](http://www.fig.net/fig2015)  
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Therefore proposals for papers are requested in all topics of interest of the following commissions:

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18. Spatial Planning and Development – FIG commission 8
19. Valuation and the Management of Real Estate – FIG commission 9
20. Construction Economics and Management – FIG commission 10

Papers are also invited for the Permanent Institution of FIG: History of Surveying and Measurement

YS network would like to see contributions from young surveyors in all 10 commissions.

Please note the overall theme for the Working Week is “From the Wisdom of the Ages to the Challenges of the Modern World” and one sub theme will be “Wisdom and professional education”.

## SPECIFIC TOPICS OF FIG CONGRESS

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

### COMMISSION 1 – PROFESSIONAL STANDARDS AND PRACTICE

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- International boundaries;
- Professional ethics;
- Women in Surveying;
- Engaging the private practitioner; and
- Mutual recognition.

### COMMISSION 2 – PROFESSIONAL EDUCATION

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- From professional surveying education towards educating the land professional
- Maintaining the chain of professional education
- Becoming an active Commission
- Pimp my FIG: challenging workshops, rich conferences and enlightning congresses
- Educational standards and accreditation
- Attracting new generations and students to surveying programmes
- Innovation in surveying curricula
- Life-long learning - educational and training services
- Good educational practices

- Building capacity for training and education

### COMMISSION 3 – SPATIAL INFORMATION MANAGEMENT (SIM)

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- 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)

### COMMISSION 4 - HYDROGRAPHY

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- Hydrographic surveying and mapping
- Hydrographic standards and guidelines
- Hydrographic education, training, and professional development
- New and emerging science and technologies for hydrography (e.g. sensors, systems, AUVs, electromagnetic wave propagation etc.)
- Maritime and marine spatial information management (including data processing and management of hydrographic data, data structures, marine spatial data infrastructures, marine information systems)
- Hydrography and society (Offshore surveying in support of energy, environment, submarine telecommunications, ports and harbours, economies, national and international political objectives)

### COMMISSION 5 – POSITIONING AND MEASUREMENT

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A special session on the topic: “**Atmospheric application of GNSS**” is planned and abstracts on this theme are welcome. Please note in the comments of your abstract submission if your submission is specifically intended for this subject.

Hereto the following themes are in focus:

- Standards, best practice guidelines, quality assurance and calibration for survey (including geodetic) measuring instruments
- National or geospatial reference systems and associated infrastructure
- Vertical reference frames, geoid and gravity
- GNSS (GPS, GLONASS, Beidou, Galileo, Multi-GNSS), including CORS networks
- Terrestrial and airborne laser scanning
- Cost-effective surveying (GNSS and other survey methods)
- Multi-Sensor-Systems (INS-GNSS, Mobile Mapping, etc.)

- Ubiquitous positioning techniques and applications -such as RFID, WiFi, AGPS, mobile phones, MEMS inertial sensors, Locata
- Positioning and metrology – technique, methodology, adjustment and analysis

#### **COMMISSION 6 – ENGINEERING SURVEYS**

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- 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**

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- Integrating new technologies in land administration and cadastre
- Modern communication in land administration systems
- Land policy and reform to support sustainable use of land
- Pro poor land management and its role in public administration
- Land management for state and public land
- Multi-dimensional cadastre
- Land rights reflecting societies' needs
- Land administration in pre- and post-conflict and post disaster areas

#### **COMMISSION 8 – SPATIAL PLANNING AND DEVELOPMENT**

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- Environmental challenges in megacities
- Disaster and environmental management
- Urban and rural land use planning
- 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 management utilization – Action and planning

#### **COMMISSION 9–VALUATION AND THE MANAGEMENT OF REAL ESTATE**

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- 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

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- Quantity Surveying and Cost Management
- Project Procurement and Tendering (Bidding)
- BIM - Building Information Modelling - the hottest one,
- Construction standards and regulations including proposed International Construction Measurement Standards (ICMS)
- Construction economics and global construction trend
- Innovative house building and affordable housing
- Sustainable construction and development

## 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. Abstracts and papers can also be submitted in Bulgarian (however not peer review papers).

**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.

## NON-PEER REVIEW – SUBMISSION OF ABSTRACTS

We invite you to submit an abstract for the FIG Working Week by 15 November 2014. 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 2015. 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/fig2015/submission.htm](http://www.fig.net/fig2015/submission.htm).

Please note the deadline **15 November 2014** for submitting the abstract. 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 2015 you shall submit your **full paper** by **20 October 2014**. When preparing the paper, please follow the guidelines prepared for papers (**paper guidelines** and the specific **paper template** for FIG Working Week 2015 that are available on the conference web site, [www.fig.net/fig2015](http://www.fig.net/fig2015)). Please feel free to submit a paper on any topic related to the specific topics of FIG 2015.

**Important:** In addition to submitting the full paper, you shall also submit an abstract of your paper **online** to FIG database on the following web site: [www.fig.net/fig2015/submission.htm](http://www.fig.net/fig2015/submission.htm). Please mark “*This abstract is submitted for peer review*”. Before sending the abstract and full paper, please read the **FIG guidelines for peer review papers**.



The peer review process is double blind and deadlines for different steps can be seen below under **important dates**.

Full papers shall be submitted to FIG in **electronic format** to:  
International Federation of Surveyors by email to [fig@fig.net](mailto:fig@fig.net).

If you have problems with email the paper you can contact FIG for assistance, [fig@fig.net](mailto:fig@fig.net) or the paper can be submitted (in electronic format) by mailing it to:

International Federation of Surveyors  
Kalvebod Brygge 31-33  
DK-1780 Copenhagen V  
DENMARK  
Tel + 45 3886 1081

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).

**Important:** In addition to submitting the full paper, you shall also submit an abstract of your paper **online** to FIG database on the following web site: [www.fig.net/fig2015/submission.htm](http://www.fig.net/fig2015/submission.htm). Please mark "*This abstract is submitted for peer review*". Before sending the abstract and full paper, please read the **FIG guidelines for peer review papers**.

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

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/fig2015](http://www.fig.net/fig2015).

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 15 February, 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](mailto:fig@fig.net), tel +45 3886 1081).



We look forward to meeting you in Sofia in May 2015.

Yours sincerely,

Zlatan Zlatanov  
Co-Conference Director

Louise Friis-Hansen  
Co-Conference Director/FIG Manager

## IMPORTANT DATES

Deadlines for submitting abstracts, papers and registration are:

### Non Peer Reviewed Papers

### Peer Reviewed Papers

**15 November 2014**

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

**20 October 2014**

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

**20 January 2014**

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

**15 December 2014**

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.

**10 January 2015**

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

**7 February 2015**

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

### All Papers (peer reviewed and non peer reviewed)

**15 February 2015**

Early bird registration closes  
Deadline for all authors to register.

**01 March 2015**

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

**31 March 2015**

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

**10 April 2015**

Deadline for normal registration.

**17-21 May 2015**

**FIG WORKING WEEK 2015 – SOFIA BULGARIA**