



**FIG COMMISSION 3**  
WORKSHOP & ANNUAL MEETING



International Federation of Surveyors  
Fédération Internationale des Géomètres  
Internationale Vereinigung der Vermessungsingenieure  
**FIG COMMISSION 3**  
Spatial Information Management



**Consiglio Nazionale  
Geometri e Geometri Laureati**

Geospatial Crowdsourcing and VGI:  
Establishment of SDI & SIM  
4-7 November 2014 Bologna - Italy



With the scientific cooperation of **SIFET** 



Dear Colleagues and friends,

FIG Commission 3 on Spatial Information Management is one of the most active commissions within FIG (International Federation of Surveyors). In addition to the annual FIG conferences

and congresses, we are organizing each year a workshop and an annual meeting which covers topics of interest for our mapping, surveying, planning and engineering communities.

The theme of 2014 FIG Commission 3 workshop and meeting is “Geospatial Crowdsourcing and VGI: Establishment of Spatial Data Infrastructure & Spatial Information Management”. My colleagues in the commission and I think that Crowdsourcing in general and Geospatial Crowdsourcing and VGI in particular have a great importance nowadays with the improved technical capabilities and technologies, huge volumes of geospatial information and the growing demand for geospatial products.

The aim of the workshop is to study the impact of volunteered and crowdsourced geospatial data and information in terms of SDIs and SIM. Among others, managing the built environment, monitoring the

legalization process and progress of land, property registration, planning reforms. Emphasis will be given to the understanding and assessment of the authenticity, validity, and uncertainty of VGI and crowdsourced procedures, in transforming it to a valuable, trustworthy, and usable component for SDI and SIM that are related to practical applications with the appropriate reference frameworks, standards, models and analytical approaches.

During the three days of the workshop lectures will be given by researchers and professionals from around the world, including 3 keynote speeches by key personnel in the field.

It is an honor and great pleasure for me on behalf of FIG Commission 3 to welcome and invite you to the 2014 FIG Commission 3 workshop and annual meeting in Bologna, Italy. I encourage all who have an interest in surveying and mapping to attend the workshop as I am sure that this event will prove to be highly successful and rewarding for all. With great enthusiasm I look forward to welcoming you in Bologna.

**Prof. Dr. Yerach Doytsher**  
FIG commission 3, Chair



Dear Colleagues,

it's my pleasure to welcome and thank you for your participation in the Meeting of FIG Commission 3 in Bologna.

Considering the registrations I can note that a lot of colleagues, academics and cadaster representatives are present coming from all over the world.

That means that the topic of the workshop of Commission 3 this time "Geospatial Crowdsourcing and VGI: establishment of SDI & SIM" is of great interest and calls the attention of several important experts.

Bologna, ancient city of art and culture, has demonstrated its appeal.

The Consiglio Nazionale Geometri e Geometri Laureati, as host association, has done its best to make cozy and comfortable your staying during the working sessions. The papers present in the program are all very interesting and are about the actuality and the future of the Spatial Information Management, and I really hope that such working methodologies in the hand of citizens and the surveyors assist good governance, efficient opera-

tions of property markets, affordable planning, affordable housing, and appropriate environmental management - by providing innovative and reliable land tools and spatial information solutions addressing global challenges.

I also hope that the project regarding the recognition of the Arcades of Bologna by UNESCO as World Heritage will be of your interest during the specific session on 6th November.

Please allow me to thank the FIG Foundation for the support given to the Young Surveyors to participate in this event.

I look forward to welcoming you in Italy.

**Maurizio Savoncelli**  
President of CNGeGL

4 November

WELCOME  
RECEPTION  
**19:00**

Welcome Reception  
NH Bologna de la Gare  
Piazza XX Settembre, 2  
40121, Bologna, Italy

**NH**  
HOTELS



5 November

REGISTRATION  
**9:00 - 10:00**

OPENING SESSION  
**10:00 - 10:30**

Yerach Doytsher  
Enrico Rispoli

KEYNOTE SPEECH  
**10:30 - 11:30**

Chair Sagi Dalyot

"Open Geospatial Science and its role in  
Surveying education"  
Suchith Anand / UK



**COFFEE BREAK 11:30 - 12:00**

SESSION 1 / CADASTER 1  
**12:00 - 13:30**

Chair Alessandro Dalmasso

Integrated access to geospatial data in  
terms of correct functioning of real  
estate management  
**Ewelina Wójciak and Agnieszka Bieda /  
Poland**

A proposed semi-automated approach  
for updating street addresses of real  
property parcels using SOA-based  
services  
**Anthony Braun and Steinar Høseggen /  
Israel - Norway**

Enchaining Cadastral Survey by  
Facilitating Owners Participation  
George Mourafetis, Konstantinos  
Apostolopoulos, Chryssy Potsiou and  
Charalabos Ioannidis / Greece



**LUNCH 13:30 - 15:00**

5 November

SESSION 2 / SDI 1

15:00 -16:30

Chair Yerach Doytsher

"E- learning a functional model of learning in Geography and Physics subject in high schools"

Zamira Gjeleshi and Etleva Miftari / Albania

Environmental Urban Sustainability in medium sized coastal cities. Environmental Indicators Approach

Akrivi Leka, Angelos Siolas and Costas Cassios / Greece

Stereovision Drone

Pietro Grimaldi / Italy



COFFEE BREAK 16:30 - 17:00

FIG3 ANNUAL MEETING

17:00 - 18:00

6 November

WELCOME SPEECH

9:00 - 9:30

Authorities

Maurizio Savoncelli / CNGeGL President

KEYNOTE SESSION / ARCADES OF BOLOGNA

9:30 - 11:00

Chair Yerach Doytsher,

Chair of FIG Commission III

Rapporteur Enrico Rispoli,

board member of CNGeGL and incoming chair FIG Commission III

Presentation of the initiative of the Municipality of Bologna "recognition of the Arcades of Bologna as a World Heritage Site"

Luigi Virgolin, Official of the Department of Economics and Promotion of the City, and Matteo Lepore, Councillor / Italy

World Heritage Designation: identifying the Outstanding Universal Value

Giorgio Andrian, UNESCO International Consultant / Italy

The restoration of the Arcade of St. Luca in Bologna

Renato Sabbi, Chairman of the Committee for the restoration of the Arcade of St. Luca / Italy

Bologna, Arcades, Surveyors.

"Transactions of topographicstructural Monitoring – Arcades project - Bologna - Sections II - Mystery III and VI - Mystery VII - arcades of Saint Luca"

Gualtiero Parmeggiani- Board Member of the College of Surveyors of Bologna and Secretary of the Foundation of Surveyors of the Emilia Romagna Region / Italy



PRESS CONFERENCE  
COFFEE BREAK 11:00 - 11:30

## VENUE

Servizio Geologico, Sismico e dei Suoli della Regione Emilia-Romagna

## Address

Viale della Fiera, 8 - Bologna

## Meeting Room

Sala 20 Maggio 2012

6 November

SESSION 3 / SDI 2

11:30 - 13:00

**Chair** Yerach Doytsher,

Chair of FIG Commission III

**Rapporteur** Enrico Rispoli,

board member of CNGeGL and incoming chair  
FIG Commission III

The Spatial Data Infrastructure of the  
Emilia-Romagna regional administration -  
**Giovanni Ciardi and Stefano Olivucci,**  
**Officials of the Emilia Romagna Region / Italy**

Geodetical infratructures on Emilia  
Romagna territory

**Stefano Gandolfi, Professor of the University  
of Bologna, Department of Civil Engineering,  
Chemistry, Environment and Materials / Italy**

Geomatics and Emergency Management  
**Piero Boccoardo, Andrea Ajamar, Fabio Giulio  
Tonolo - Ithaca/University Politecnico of  
Torino / Italy**



LUNCH 13:00 - 14:30

SESSION 4 / GEOSPATIAL DATA

14:30 - 15:30

**Chair** Charalabos Ioannidis

GIS on Natural Risks and Resources  
developed by regional geological, seismic  
and soil survey

**Alberto Martini, Official of the Emilia  
Romagna Region / Italy**

"The 3D inventory register in Italy and  
abroad, viewed as a guarantee of the  
protection of rights, fair taxation and  
better knowledge of the area"

**Bruno Razza, Vice President of the Interna-  
tional Federation of Surveyors / Italy**

Dissemination of scientific data: crowd-  
sourcing in the field of slope failure  
assessment

**Francesco Mancini, Alessandro Capra DIEF  
Dept. - University of Modena and Reggio  
Emilia - SIFET / Italy**



COFFEE BREAK 15:30 - 16:00

SESSION 5 / CROWDSOURCING 1

16:00 - 17:30

**Chair** Hartmut Müller

"Standardizing Participatory Mapping of  
Indigenous Community Area in Indone-  
sia"

**Rizqi Abdulharis, Andri Hernandi, Asep Yusup  
Saptari and Alfita Puspa Handayani /  
Indonesia**

"Potential of VGI - Case study Croatia" -  
**Baldo Stančić, Vlado Cetl and Hrvoje Tomić /  
Croatia**

"SDI and Crowdsourced Spatial Informa-  
tion Management Automation for  
Disaster Management"  
**Saman Koswatte, Kevin Mcdougall and  
Xiaoye Liu / Australia**

7 November

KEYNOTE SPEECH  
9:00 - 10:00

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Chair Robert Foster

Chryssy Potsiou - FIG President Elect  
2015-2018 / Greece

SESSION 6 / CROWDSOURCING 2  
10:00 - 11:30

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Towards the Production of Digital Terrain  
Models from Volunteered GPS Trajectories  
Ido Massad and Sagi Dalyot / Israel

Crowdsourcing and Wisdom of the  
Crowd: the Location Based Services  
Perspective  
Talía Dror, Sagi Dalyot and  
Yerach Doytsher / Israel

KuLIS, a Tool Designed for Integrated  
Geospatial Management of Volunteered  
Cultural Landscape Information  
Hartmut Müller and Falk Würriehausen /  
Germany



COFFEE BREAK 11:30 - 12:00

SESSION 7 / CADASTER 2  
12:00 - 13:00

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Chair Daniele Brancato

Social mutation and lost neighborhoods  
in Athens, Greece  
Efthimios Bakogiannis, Charalambos  
Kyriakidis, Maria Siti, Angelos Siolas and Avgi  
Vassi / Greece

The OpenStreetMap for cadastral  
purposes: An application using VGI for  
official processes in urban areas  
Sofía Basiouka, Chryssy Potsiou and  
Efthimios Bakogiannis / Greece

Participatory Mapping in Support of  
Improved Land Administration and  
Management of Natural Resources  
Bozena Lipej and Janaq Male / Slovenia -  
Albania



LUNCH 13:00 - 14:30

CLOSING SESSION  
14:30 - 15:30

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Best article & Closing remarks



COFFEE BREAK 15:30 - 16:00

PREPARATION FOR SOCIAL PROGRAM  
16:00 - 17:00

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SOCIAL PROGRAM (UNTIL NIGHT)  
17:00

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Visit Arcades of San Luca  
Tour of the city of Bologna  
Conference dinner



Bologna, the ancient city of art and culture is lively and cheerful for the freshness brought by the thousands of students who attend the prestigious alma mater, the University founded in 1088, is the oldest in the world.

The arcades are widespread in the historical center, are slated to be recognized "World Heritage" by UNESCO and make the city unique.



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