ROMANIAN SURVEYING WEEK

23-28/09/2019 CLUJ-NAPOCA

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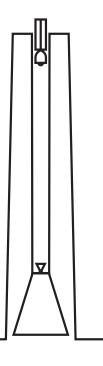
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WELCOME TO THE ROMANIAN SURVEYING WEEK





Dear colleagues from all over the world.

we are very pleased to welcome you to the first edition of "Romanian Surveying Week", Clui-Napoca 23 – 28 of September, 2019!

"Romanian Surveying

Week" will become a

special moment in our union'slife. Every year, for few days, in the one of the hosting university centershaving geodetic engineering curricula, we will bring together duringtechnical sessions, debates of professional subjects and technicalexhibitions, people actively participating to our professional community's life.

During these events we will have by our side university professors and companies from our professional field. I am convinced that if we will succeed to attract students and young surveyors to have a pro-activeparticipation to the "Romanian Surveying Week" we will assure a bettercohesion of our professional community, thus creating a proper climate forinnovation and technical progress for our profession at European standards level, but also increasing the quality of services offered, for thebenefit of whole Romanian society.

Moreover, this year for a whole week, special guest from Europe will joinus in Cluj-Napoca, at the USAMV campus. Vice-President of FIG - Dr. OrhanErcan, Former FIG President -Prof. Chryssy Potsiou, Chair of FIG Commission 3 – Prof. Hartmut Muller and former FIG Vicepresident Prof. Ralf Schroth are few of the guests we areready to welcome this year for the "Romanian Surveying Week"

Ionut Săvoiu President of Romanian Surveyors Union

FIG Commission 3 within the Romanian Surveying Week in the charming city of Cluj-Napoca. We, the members of the Commission, are very grateful to our hosts in Romania, who made this event possible and who support the initiative with their continued enthusiasm.

More than 80% of global GDP is generated in cities, urbanization is a continuous growth driver. Sustainable urban development urgently requires advanced methods of management, allowing innovation and new ideas to emerge. The theme of the Workshop 'Advances in Geodata Analytics for Smart Cities and Regions' addresses the role of the geospatial scientificand professional community in shaping the future of urban and regional development and creating opportunities.

Enjoy the Meeting and Workshop and share your knowledge and expertise with colleagues from Romania and from many other countries. And do not forget to meet and make new friends.

I am looking forward to a fruitful and inspiring meeting in this beautiful country and citv.

Hartmut Müller Chair of FIG Commission 3 Spatial Information Management

Dear colleagues and friends.

As Chair of FIG Commission 3 "Spatial Information Management" I have the great pleasure to welcome you to the Annual Meeting

and Workshop of

Also, during Romanian Surveying Week,

The participants have the opportunity to publish their presentations (oral or poster) in English, full – paper, after peer-review evaluation, as research article or short communication in Bulletin of UASVM-CN (indexed in prestigious international data bases). We look forward to welcome you in the vibrant city of Cluj-Napoca, one of the most effervescent European cities, with a

multicultural environment.

Assoc. Prof. PhD. Eng. Tudor Sălăgean Vice Dean, Faculty of Horticulture, USAMV Cluj-Napoca



Dear colleagues,

it is our great pleasure to welcome you to the 1st edition of the International event Romanian Surveying Week, organized by the University of Agricultural Sciences and

Veterinary Medicine Cluj-Napoca (USAMV Clui-Napoca) which celebrates 150 years of existence.in collaboration with the Romanian Surveyors Association (UGR) and with the International Federation of Surveyors (FIG) - Commission3.

Romanian Surveying Week is the most important community event held in Romania this year, organized for surveyors and will bring together specialists from Romania and from abroad. The event will host technical meetings of UGR and FIG - Commission 3, as well as various workshops and exhibitions of latest surveying equipment with the participation of theprivate sector and there will be debates on various subjects in the field ofgeodesic engineering.

scientific presentations will be held at the

Sustainable Development" section "Geo-

desy, Geomatics and Property Valuation".

International Conference "Life Sciences for

FIG COMMISSION 3 WORKSHOP AND ANNUAL MEETING: *ADVANCES IN GEODATA ANALYTICS FOR SMART CITIES AND REGIONS*



MONDAY, 23/09/19

15:00 —	PARTICIPANTS
19:30	REGISTRATION
15:00	OPTIONAL CITY TOUR

19:00 WELCOME COCKTAIL





TUESDAY, 24/09

08:00 — 17:00	PARTICIPANTS REGISTRATION
09:00 — 10:30	OPENING CEREMONY & WELCOME SPEECHES
10:30 — 11:00	COFFEE BREAK
11:00 —	PLENARY SESSION -

- 12:30
- NEW DEVELOPMENTS IN GEOSPATIAL INFORMATION AND LAND ADMINISTRATION

Chair: Ionut Savoiu; Rapporteur: Alexandru-Dorin Paun

Ministry of Regional Development and Public Administration representative

Data for Architects. An Eye Level perspective. Serban Tiganas

Latest pgress on the implementation of the INSPIRE directive Ileana Spiroiu, ANCPI Deputy General Director

Land administration in the cross-section of SDG's and disruptive technologies Orhan Ercan, FIG Vice President, Turkey

Responsible Land Administration: Geoinformation and more Jacob Zevenbergen, Professor at University of Twente, Enschede, The Netherlands

12:30 — *LUNCH* 13:30

13:30 – COM 3 TECHNICAL 15:00 SESSION 1 – 2D AND 3D APPLICATIONS

Chair: Raluca Manea; Rapporteur: Hartmut Müller

Development of an Open Source Software for Reliable 2D Crowdsourced Cadastral Surveys Konstantinos Apostolopoulos and Chryssy Potsiou, Greece

Python API for ArcGIS Andrei Stefan, ESRI Romania

A Machine Learning Hybrid Model for Augmenting the Elevation Calculation in Smartphones Elias Issawy and Sagi Dalyot, Israel

Investigating the use of 3D Modelling and Geovisualisation for social housing Dimitrios Kitsakis, Ioannis Pispidikis, Katerina Athanasiou, Eftychia Kalogianni and Efi Dimopoulou, Greece

15:30 – COM 3 TECHNICAL 17:00 SESSION 2 – SPACE IN PLANNING

Chair: Ulrike Klein; Rapporteur: George Laurentiu Merciu

A Case Study for Location Decisions in Regional Development: Suggestions for Residential and Recreational Areas in Landau, Lower Bavaria, Germany Cemre Sahinkaya, Turkey

Monitoring Aging Residential Areas in Rural Germany. Challenges and Smart Responses Markus Schaffert, Germany

The potential of Volunteered Geographic Information (VGI) to contribute in cycling infrastructure planning in Athens, Greece Efthimios Bakogiannis, Charalampos Kyriakidis, Maria Siti and Chryssy Potsiou, Greece

Quality Assurance of Geospatial Information in the Humanities Nicole Bruhn, Laura Raddatz, Sebastian Steppan and Hartmut Müller, Germany

19:00 TRANSILVANIA DINNER

15:00 - **COFF** 15:30

COFFEE BREAK

WEDNESDAY, 25/09

09:00 – PLENARY SESSION KEYNOTE 10:30 SPEAKERS PRESENTATION

Chair: Ana Cornelia Badea; Rapporteur: Anca-Maria Moscovici

New trends in geospatial information: the land surveyors role in the era of crowdsourcing and VG Chryssy Potsiou, Past FIG President, Greece

Smart Cities – From IoT to IoP Ralf Schroth, Director at Blom International Operations, Romania

Spatial Information Management: Now and Tomorrow Hartmut Müller, FIG Commission 3 Chair, Germany

10:30 - **COFFEE BREAK** 11:00





11:00 — 12:30	FIG COM 3 TECHNICAL SESSION 3 – CULTURAL HERITAGE AND EDUCATION	15:30 — 17:00	FIG COM 3 TECHNICAL SESSION 4 – GEOSPATIAL DATA MANAGEMENT
	Chair: Charalabos Ioannidis; Rapporteur: Cornel Paunescu Card on Cultural Heritage and GIS of Serracapriola Pietro Grimaldi, Italy		Chair: Yerach Doytsher; Rapporteur: Cemre Sahinkaya Integration of Big Data for Smarter Geospatial Decisions of Public Investments Cemal Ozgur Kivilcim, Turkey
	The preservation of the traditional building system in the Saharan environment as factor of sustainability. Case of study: south of Algeria. Mourad Maroc, Morocco		Geospatial Big Data Management for a Holistic Documentation of Complex Sites – The case of Meteora, Greece Charalabos Ioannidis, Chryssy Potsiou, Sofia Soile, Styliani Verykokou and Argiro-Maria Mpoutsi, Greece
	Romanian Geodesic Education between past and future Raluca Manea, Tudor Sălăgean, Romania		OpenSDI, Open Spatial Data Infrastructures Ulrike Klein, Germany, Drazen Tutic, Croatia
12:30 — 13:30	LUNCH	17:00 — 18:30	COM 3 ANNUAL MEETING
13:30 — 15:00	YOUNG SURVEYORS SESSION Chair: Cemre Sahinkaya and Cemal Kivilcim	19:00	FIG DINNER (BY INVITATION)
15:30 —	COFFEE BREAK		

17:00

THURSDAY, 26/09



10:30 – **COFFEE BREAK** 11:00

11:00 -FIG COM 3 TECHNICAL12:30SESSION 5 - GIS TOOLING

Chair: Dražen Tutić; Rapporteur: Cemal Ozgur Kivilcim

GIS as a tool in evaluating the degree of reuse of cultural heritage. Case study: historical center of Bucharest George-Laurentiu Merciu, Cornel Paunescu and Cristina Merciu, Romania

Participatory Procedures & Consideration for Introducing Gamification tools in the Hellenic Cadastral Project Konstantinos Apostolopoulos and Chryssy Potsiou, Greece

GIS tools for participatory planning, an exploratory study on internationally available tools Marije Louwsma, Netherlands, Hartmut Müller; Germany and Enrico Rispoli, Italy

12:30 -	FIG COM 3 - OPEN
13:30	DISCUSSION AND CLOSING

19:30 GALA DINNER

USAMV CLUJ-NAPOCA INTERNATIONAL CONFERENCE: LIFE SCIENCES FOR SUSTAINABLE DEVELOPMENT



THURSDAY, 26/09

- 08:00 PARTICIPANTS REGISTRATION 13:30 "LIFE SCIENCES FOR SUS-TAINABLE DEVELOPMENT"
- 09:00 OPENING CEREMONY 10:00 "LIFE SCIENCES FOR SUS-TAINABLE DEVELOPMENT"

10:00 -OPENING EXHIBITION/11:00POSTER PRESENTATION

Chair: Adrian Savu; Rapporteur: Constantin Chirila

Geospatial development using GIS smart planning Ana Cornelia Badea, Gheorghe Badea

Implementation of aerial monitoring technology in permanent grassland management George Popescu, Cosmin Alin Popescu, Mihai Herbei, Lucian Dragomir, Ionel Samfira, Costel Barliba

Monitoring of excavation works using modern measuring technology George Popescu, Cosmin Alin Popescu, Mihai Herbei, Lucian Dragomir, Adrian Smuleac, Silviu Dorobantu

3D Laser scanning - the precise solution for mobile mapping of roads and railways administartion Mihai Cosmin, Georgian Coman - Molbak Proiect

10:30 — 11:00

COFFEE BREAK

11:00 -PLATINUM AND GOLD SPON-12:30SORS TECHNICAL SESSION 1

Chair: Irinel Gresita

Heveco Cornel & Cornel Topoexim Gauss Black Light

13:30 – *LUNCH* 14:30

14:30 -PLATINUM AND GOLD SPON-16:00SORS TECHNICAL SESSION 2

Chair: Eneia Bodea

Top Geocart Giscad Globema Toposurvey

Molbak

14:30 – PLENARY TECHNICAL 16:00 SESSION 1

Chair: Carmen Grecea; Rapporteur: Anca-Maria Moscovici

Automating the representation of spatial data taken with RTK GNSS Technology

Caius Didulescu, Adrian Savu, Aurel Florentin Cătălin Negrilă

Current situation of GNSS networks in romania Alexandru-Iulian Iliescu, Tiberius Rus, Valentin Danciu, Constantin Moldoveanu, Andrei Ilie

Creating an information system for the prevention of road accidents accessible to the general public in the republic of moldova Livia Nistor-Lopatenco, Dorina Bucatari, Alexandru Pantaz

Mapping the spatio temporal evolution of green area using GIS Florica Matei, Iona Pop, Tudor Sălagean, Iulia Coroian, Elemer Suba, Jutka Deak, Diana Ficior, Ioan Luput

How to create an effective thematic map Doina Vasilca

16:00 —	COFFEE BREAK
16.30	

16:30

16:30 - UGR ROUND TABLE

18:00 Chair: Ionut Savoiu

Role of lincesed suveyors in developing SMART Cities and Regions Special guest on the floor from academic, public and private sector.

19:30 GALA DINNER



FRIDAY, 27/09

09:00 – PLENARY TECHNICAL 10:30 SESSION 2

Chair: Livia Nistor-Lopatenco: Rapporteur: Anca Pavaloiu

Smart agriculture: general aspects and future Alexandru-Iulian Iliescu, Catalina Calin, Raluca Manea, Anca-Maria Moscovici, Vlad Paunescu

Considerations regarding the calculation of the corrections applied to the geometric geodetic level networks Marciel Palamariu, Sanda Naş, Paul Sestraş, Mircea Ortelecan, Tudor Sălagean, Nicolae Pop

The impact of Airbnb platforms on the romanian real estate market Daniela Răboj

Comparing RGB-based vegetation indexes using UAV photogrammetric method for precise agriculture Elemer-Emanuel Şuba, Tudor Sălagean, Ioana Delia Pop, Florica Matei, Silvia Chiorean, Iulia Coroian, Raluca Manea

Generating a surface by B-Spline interpolation Iulia Coroian, Florica Matei, Ioana Delia Pop, Tudor Sălagean, Elemer-Emanuel Şuba

10:30 - **COFFEE BREAK** 11:00

11:00 – PLENARY TECHNICAL12:30 SESSION 3

Chair: Florica Matei; Rapporteur: Elemer Emanuel Suba

Using the laser scanning technology in the evaluation of a building situated on ion neculce street from Cluj-Napoca Mircea-Emil Nap, Petre-Iuliu Dragomir, Tudor Sălagean, Elemer-Emanuel Şuba

GNSS PPP: an alternative method to RTK? Alexandru-Iulian Iliescu, Tiberius Rus, Valentin Danciu, Constantin Moldoveanu, Andrei Ilie

Aspects regarding the corrections applied to normal altitudes in superior order leveling networks Maricel Palamariu, Sanda Nas, Paul Sestras, Mircea Bondrea, Mircea Ortelecan

12:30 – CLOSING CEREMONY 14:00 AWARDS CEREMONY

Chair: Dan C. Vodnar

14:00 – *LUNCH* 15:00



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