



# GeoForAll

Monthly Newsletter



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## 1. Activities of the Network

- Siberian State University of Geosystem and Technologies has announced the opening of a business incubator for students based on Siberian OpenSource Geospatial Lab. More information at the [SGU GIT website](#)
- [Ottawa, Ontario, OSGeo Meetup Group](#) meets on the third Thursday of each month. If you are located in the area, go to the link to sign up to the group and get updates about future events.
- The [USA White House](#) has released a draft Federal Source Code policy seeking public comment on supporting open source software solutions and “improved access to custom software code developed for the Federal Government.” The draft policy can be read and commented on [here](#).
- Location Tech [Steering Committee elections](#) in April, meeting scheduled for [FOSS4GNA 2016](#)

- OGC Technical Committee Meeting

During the recent Open Geospatial Consortium (OGC) Technical Committee Meeting in Washington, DC, USA, which occurred March 7 to 11, the Point Cloud Domain Working Group met for a productive session. All presentations from that session have been made public for your review. You may find the agenda, presentations, and recording as follows, and presentations from other sessions are available on the agenda as well:

### Agenda

[Point Cloud DWG Agenda; Stan Tillman](#)

[Point Cloud Survey Results; Stan Tillman](#)

[Advanced Point Cloud Format Standards; Michael Ingram](#)

[Improving Access to Point Cloud Data; Keith Ryden](#)

[Visibility Analysis; Ravi Peters](#)

[Point Cloud DWG recording](#)



## Editorial Board

Please refer to the appropriate person according to the following table:

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<b>Production Designer</b> 	<p>Nikos Voudrirlis, Principal of the 1<sup>st</sup> Primary School of Asvestochori, Thessaloniki, Greece, MSc, PhD candidate in geography education.  <a href="mailto:nvoudris@gmail.com">nvoudris@gmail.com</a></p>	Design and final formation of the newsletter



## GeoForAll Regional Chairs and Contact Information

### North America Region

Chairs: Helena Mitasova (USA), Charles Schweik (USA), Phillip Davis (USA) Subscribe at mail list <http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-northamerica>

Email: [na.gfa.chair@osgeo.org](mailto:na.gfa.chair@osgeo.org)

### South America Region

Chairs: Sergio Acosta y Lara (Uruguay) and Silvana Camboim (Brazil) Subscribe at mail list <http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-southamerica>

Email: [sa.gfa.chair@osgeo.org](mailto:sa.gfa.chair@osgeo.org)

### Africa Region

Chairs: Rania Elsayed Ibrahim (Egypt), Serena Coetzee (South Africa) and Bridget Fleming (South Africa) Subscribe at mail list <http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-africa>

Email: [africa.gfa.chair@osgeo.org](mailto:africa.gfa.chair@osgeo.org)

### Asia Region (including Australia)

Chairs: Tuong Thuy Vu (Malaysia/Vietnam) and Venkatesh Raghavan (Japan/India) Subscribe at maillist <http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-asiaaustralia>

Email: [asia.gfa.chair@osgeo.org](mailto:asia.gfa.chair@osgeo.org)

### Europe Region

Chairs: Maria Brovelli (Italy) and Peter Mooney (Ireland) Subscribe at mail list <http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-europe>

Email: [eu.gfa.chair@osgeo.org](mailto:eu.gfa.chair@osgeo.org)

## GeoForAll Themes

### ▪ OpenCity Smart

➤ Chairs: Chris Pettit (Australia), Patrick Hogan (USA)

➤ Mail list: <http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-urbanscience>

➤ Website: <http://wiki.osgeo.org/wiki/OpenCitySmart>

### ▪ Teacher Training & School Education

➤ Chairs: Elżbieta Wołoszyńska-Wiśniewska (Poland), Nikos Lambrinos (Greece)

➤ Mail list: [geoforall-teachertraining@lists.osgeo.org](mailto:geoforall-teachertraining@lists.osgeo.org)

➤ Website: [http://wiki.osgeo.org/wiki/GeoForAll\\_TeacherTraining\\_SchoolEducation](http://wiki.osgeo.org/wiki/GeoForAll_TeacherTraining_SchoolEducation)

### ▪ GeoForAll (GeoParaTodos) Themes in Spanish

➤ Chairs: Sergio Acosta y Lara (Uruguay), Antoni Pérez Navarro (Spain)

➤ Mail list: Spanish : [geoforall-spanish@lists.osgeo.org](mailto:geoforall-spanish@lists.osgeo.org)

➤ Website: [http://wiki.osgeo.org/wiki/GeoForAll\\_Spanish](http://wiki.osgeo.org/wiki/GeoForAll_Spanish)

### ▪ CitizenScience

➤ Chairs: Peter Mooney (Ireland) and Maria Brovelli (Italy)

➤ Mail list: <https://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-geocrowd>

➤ Website: [http://wiki.osgeo.org/wiki/Geocrowdsourcing\\_CitizenScience\\_FOSS4G](http://wiki.osgeo.org/wiki/Geocrowdsourcing_CitizenScience_FOSS4G)

### ▪ AgriGIS

➤ Chairs: Didier Leibovici (U.K.) and Nobusuke Iwasaki (Japan)

➤ Mail list: <https://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-agrigis>

➤ Website: <http://wiki.osgeo.org/wiki/AgriGIS>



## 2. Lab of the Month

### Regional Centre for Mapping of Resources for Development (RCMRD) Nairobi, Kenya

By Suchith Anand



Suchith Anand,  
Nottingham Geospatial  
Institute, University of  
Nottingham, UK

Dear Geo4All Colleagues,

We started the New year with University of Pretoria (South Africa) as the lab of the month (Jan 2016), and we have a new year wish that we are hopeful that the momentum created by our

colleague in Pretoria will spread across Africa and benefit hundreds of students in the future. So it is also my

great pleasure to introduce our colleagues at the Regional Centre for Mapping of Resources for Development (RCMRD) in Nairobi, Kenya, as our “Geo4All” Lab of the Month in April 2016, who are exactly doing this great contribution by helping spread geoeducation opportunities not only for Kenya, but throughout Africa.

The RCMRD was established in Nairobi, Kenya, in 1975 under the auspices of the United Nations Economic Commission for Africa (UNECA) and the African Union (AU). RCMRD is an inter-governmental organization and currently has 20 Contracting Member States in the Eastern and Southern Africa Regions: Botswana, Burundi, Comoros, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Namibia, Rwanda, Seychelles, Somalia, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe. The mission of RCMRD is to promote sustainable development in the member States through generation, application, and dissemination of geo-information and allied ICT technologies, products, and services. Since establishment, they have been very instrumental in capacity building in resource survey, mapping, remote sensing, GIS, and natural resources assessment and management in Africa. It was also instrumental in helping different

countries establish their National Mapping Agencies.

Annually, RCMRD trains about 1000 technical officers from its member States and African countries in the fields of surveying and mapping, remote sensing, GIS, and natural resources assessment and management. RCMRD also implements projects on behalf of its member States and development partners. It just shows the huge impact they are making to knowledge advancement across Africa. I was especially impressed to know about their Regional Training of Trainers Programme on Integration of Land Tenure Monitoring in Development Projects Using Geo-Spatial Technologies, which is a key transformation that the 2030 Development Agenda needs to achieve. Many of the poorest and food-insecure groups are those with the most insecure land tenure rights, including the female headed households, orphans, migrant farm workers, peri-urban slum dwellers, and internally displaced persons. The Training of Trainers workshop is set to track whether investments in land tenure interventions are effective in the framework of creating advocacy for promoting investments to strengthen tenure security (see details below).

I would like to thank **Gerald Omondi** who emailed me a summary of their activities which I am including in this article, so you get the big picture of their various training and development activities.

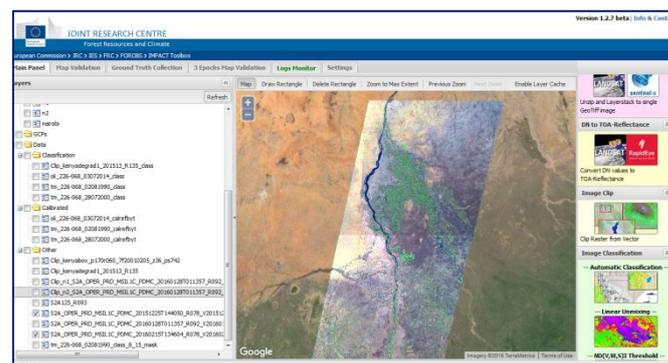
### ***RCMRD holds Thematic Training for Forest Monitoring and Land Degradation***

The RCMRD and IGAD Climate Prediction and Applications Centre (ICPAC) within the framework of the Monitoring for Environment and Security in Africa (MESA) held a two-week-long thematic training for forest monitoring and land degradation assessment from 29th February to 11th March 2016 in Nairobi, Kenya. The participants were drawn from 10 African countries in the Eastern African region. The forest monitoring and land degradation assessment training covered the development of the forest monitoring and land degradation services and products using satellite data and is incorporating the use of Geographic Information System and Remote Sensing Open-source software applications in developing the MESA forest monitoring services and products.



more about MESA here

<http://www.rcmr.org/mesa/>



Sentinel 2 images of Sudan being processing in the JRC IMPACT tool.

## ***RCMRD becomes the 1st Organization in Africa to Provide Sentinel 2 Data for 10 Countries***

In this two-week training event, participants from 10 countries got the opportunity to process Sentinel 2 data for their own regions. The Sentinel 2 satellite is financed by the European Union and launched and operated by the European Space Agency (ESA). The Sentinel 2 satellite mission provides data at 10m and 20m spatial resolution for land cover mapping in 13 different spectral channels. It currently has a revisit period of 10 days. When Sentinel 2 satellite is joined by Sentinel 2b in 2017, the revisit period will be every 5 days.

The European Commission's Joint Research Centre (JRC), with whom RCMRD has a long standing cooperation and a Memorandum of Understanding, provided the technical support to process the data. The JRC provided training on their open-source image processing software, IMPACT. The software, originally designed to provide a rapid processing of Landsat data, has been modified to process Sentinel 2 data from the raw data files provided on the ESA web site, through to classified images, which can be used in GIS. Given the restrictions of data download in a number of countries, Sentinel data is difficult to access, with data files close to 6 GB in size. The JRC aims to set up an online user interface where partner countries can select images and order a "light" version so as to reduce downloading time. The interface will contain data held both at JRC and RCMRD.



Sentinel 2 image of the Nile at Khartoum, Sudan.

<http://www.rcmr.org/rcmr-becomes-the-1st-organization-in-africa-to-provide-sentinel-2-data-for-10-countries/>

## ***Regional Training of Trainers Programme on Integration of Land Tenure Monitoring in Development Projects Using Geo-Spatial Technologies***

There is an inextricable link between land access, tenure security on one hand, and investment, income/food security on the other. This is one key transformation that the 2030 Development Agenda needs to achieve. Many of the poorest and food-insecure groups are those with the most insecure land tenure rights, including the female headed households, orphans, migrant farm workers, peri-urban slum dwellers, and internally displaced persons.



The RCMRD will host the regional Training of Trainers Programme on Integration of Land Tenure Monitoring in Development Projects Using Geo-Spatial Technologies from 3<sup>rd</sup> to 13<sup>th</sup> April, 2016. The Training of Trainers workshop is set to track whether investments in land tenure interventions are effective in the framework of creating advocacy for promoting investments to strengthen tenure security.

The overall objective of this Training of Trainers is to strengthen skills and knowledge related to land tenure monitoring and evaluation using Open-source geospatial technologies. The training will equip upstream change agents with relevant knowledge about land tenure monitoring data collection, storage, analysis, and reporting systems.

### ***RCMRD Hosts the Open Source Geospatial Data Processing For REDD+ Applications Workshop***

The “Open source Geospatial data processing for REDD+ Applications” workshop began at the RCMRD and was officially opened by Dr. Hussein Farah, the Director General of RCMRD.

The technical training workshop is being conducted as part of a NASA-SERVIR funded project “Forest carbon assessment for REDD+ in the East Africa SERVIR region.” The participants will be introduced to data processing with the “R” software package, focusing on processing spatial data for forest and carbon monitoring and mapping in the context of REDD+. Recently, “R” has been important in providing many spatial data processing functions that allows for the access of advanced data processing algorithms often unavailable in any other software. At the conclusion of the workshop, participants will know the importance of using “R” and many of the spatial data processing functions, and will be able to learn more as new capabilities are added to the changing “R” data processing archive.

Kibuga Dominic and Asimwe Eden Sarah, participants representing Uganda Bureau of Statistics (UBOS), are expecting to have the capacity to use “R” for statistical analysis and geospatial data processing after the workshop. On the other hand, Abel Siampale from the Forestry Department, Zambia, is looking forward to learning the application of “R,” interacting

with participants from different areas, and sharing the gained skills.

Open principles in geoeeducation (open educational resources, free and open software, open data, open standards, etc.) are key for true empowerment of staff and students globally and for making geospatial education and opportunities accessible to all. Access to quality education and opportunities is key for getting rid of extreme poverty and enabling broadly shared prosperity for all. It is very important to have open source GIS and standards-based solutions (OGC, ISO TC 211) to achieve widespread application of geotools at a grassroots level, especially in developing countries. Open source GIS provides accessibility and low cost solutions, as well as lowers the entry barriers for the use of geospatial technologies for all. On behalf of the Geo4All community, we thank Dr. Hussein Farah, Dr. Hussein Omar Farah (Director General, RCMRD) and all colleagues at the Regional Centre for Mapping of Resources for Development in Nairobi for their help and for their contributions to the Geo4All initiative globally.

Best wishes,  
Suchith Anand

## 3. Events

### **1. CODATA-RDA School of Research Data Science.**

**Venue:** Abdus Salam International Centre of Theoretical Physics, Trieste, Italy.

**Date:** 1-12 August 2016. Details [here](#). Deadline for applying is 18th April 2016.

### **2. GeoBigData one day workshop by RDA Geospatial IG.**

**Venue:** Nottingham University

The aim of this workshop is to bring together key research leaders working in this area to discuss and plan the research agenda and future research collaborations. It will also link **OpenCitySmart research** collaborations. Limited to 30 people.

**Date:** June, 8, 2016. For more details write to Suchith Anand [Suchith.Anand@nottingham.ac.uk]

### **3. Interexpo GEO-Siberia 2016.**

From 17 to 26 April 2016, International Society for



Digital Earth, Siberian State University of Geosystems and Technologies, and M. V. Lomonosov Moscow State University will be offering a series of joint scientific events held within XII International Exhibition and Scientific Congress “Interexpo GEO-Siberia 2016” in Novosibirsk.

Among the scientific events are:

- International Seminar “Digital Earth role in sustainable development of territories influenced by significant global climate changes”
- VII International Workshop “Early Warning and Crises Management in the Big Data Era”
- International Student and Young Researcher Summer School “GI Support of Sustainable Development of Territories in the Conditions of Global Climate Change”

For more information:

- <http://sgugit.ru/en/geo-siberia/>
- [http://sgugit.ru/en/geo-siberia/GEO-Siberia-2016- Brochure.pdf](http://sgugit.ru/en/geo-siberia/GEO-Siberia-2016-Brochure.pdf)
- [Expo-Geo](#)

4. [The California GIS Council](#) held a meeting on March 10. Notes from the meeting are available [here](#).

5. The [2016 Geospatial Skills Competition](#) is accepting submissions from undergraduate students until April 29. This competition aims to showcase the skills of US students in the geospatial field. Three or four winners are expected. See the link for more details and to register.

## 4. Conferences

### Asia

#### April 2016

1. 20-22: Interexpo GEO-Siberia-2016

XIIth International exhibition and scientific forum “Interexpo GEO-Siberia-2016” organized by the Siberian State University of Geosystems and Technologies and ExpoGeo LLC.

More details at <http://www.expo-geo.com/#!english/ap2t9>. Most of the site is in Russian but those who are interested can find persons to contact with (Mrs Argina Novitskaya – email: [argina@mail.ru](mailto:argina@mail.ru), [argina@gmx.de](mailto:argina@gmx.de)).

#### July 2016

2. 25-27 July, 2016. International Conference on Surveing, Mapping and GeoInformation (ICSMG 2016). Suzhou, China. More details at <http://www.engii.org/ws2016/Home.aspx?id=754>

#### Europe

##### April 2016

3. 17-22 April, 2016. [EGU General Assembly](#), Vienna, Austria.

##### May 2016

4. 24-29 May 2016: 10<sup>th</sup> Spanish FOSS4G & 2<sup>nd</sup> edition of the International QGIS User and Developer Conference as well as QGIS Hack Fest in Girona, Spain. So, a whole week to teach and learn about Free and Open Source Geospatial Technologies. More details at <http://www.sigte.udg.edu/jornadassiglibre/en/>

5. 25-27 May 2016: The 14th International Conference of the Geological Society of Greece, in Thessaloniki, northern Greece. The conference addresses all subjects of Earth Sciences: GIS, geoinformatics, Remote Sensing, etc. More details in [www.ege2016.gr](http://www.ege2016.gr).

6. May 30 – June 3: Under the auspices of the 2016 Dutch Presidency of the European Council, this major 5-day conference is coming to The Hague, The Netherlands. Taking place at the World Forum Convention Centre from 30 May to 3 June 2016, **European Space Solutions** will bring together business and policy makers with users and developers of space-based solutions. Don't miss the opportunity to learn about innovations that harness information from the European flagship space programmes, Galileo and EGNOS (satellite navigation) and Copernicus (Earth observation), and the EU's Horizon 2020 research programme. Opportunities for a wide range of applications and services, gathering insights about current developments, and discussing what is possible and needed in the future. More details in [www.european-space-solutions.eu](http://www.european-space-solutions.eu).

##### June 2016

7. 21-24 June 2016: International conference and a series of workshops entitled: "GeoMLA: Geostatistics and Machine Learning Applications in Climate and Environmental Sciences", at the University of



Belgrade - Faculty of Civil Engineering Belgrade, Serbia. More details in <http://geomla.org>

The Conference will take place on June 23-24, the workshops on June 21-22.

Important dates: a) March 1st 2016: abstract submission, b) April 15th 2016: early registration deadline.

## July 2016

8. 5-8 July: GI-Forum: [open: spatial: interfaces](#)

Symposium and Exhibit - Geographic Information Science

University of Salzburg, Salzburg, Austria.

9. 12-19 July 2016: ISPRS XXIII Congress, in Prague. More details at <http://www.isprs2016-prague.com/>.

There are two sessions of particular interest by our community:

a) Special Session: SpS10 - FOSS4G: FOSS4G Session (chairs: Maria A. Brovelli, Helena Mitsova, Krishnan Sundara Rajan)

*Keywords:* Free and Open Source Software for Geoinformatics (FOSS4G), geospatial research platform and systems for developing new applications crossing the new frontiers towards the Internet of Places, Big Geospatial Data processing and analytics, and complex simulations essential for understanding and managing the earth systems, human societies, and their interaction

b) Theme session: THS16: Recent Developments in Open Data

(chairs: Maria A. Brovelli, Hae-Kyong Kang, Hiroichi Kawashima)

*Keywords:* Open data, Linked open data, e-Government, Geospatial, Web

For those who need more information may contact Maria Brovelli ([maria.brovelli@polimi.it](mailto:maria.brovelli@polimi.it))

c) Session THS17: Smart cities

(Chairs: Chris Pettit & Arzu Coltekin)

*keywords:* Geodesign, urban planning, visualisation and spatial analysis of urban phenomena, energy use, walkability, pollution, health, infrastructure, population, aging.

## August 2016

10. 24-26 August: FOSS4G Conference, Bonn, Germany.

## September 2016

11. 12-14 September: [Earth Observation Open Science 2016 Conference](#)

Frascati, Italy.

Deadline for Abstracts: May 15.

12. 29-30: EUROGEO 2016 "[Geographic information for a better world](#)"

Malaga, Spain.

One proposed session is "Open Source GIS applications in Geospatial Analysis, Policy and Planning" and there are others on Green Infrastructures, Future Urban Planning and Education.

## October 2016

13. 12-16 October: [Open Source Geospatial Research and Education Symposium 2016](#)

Venue: Palazzo Cesaroni - Piazza Italia, Perugia, Italy.

Registration opens: March 15, 2016

Deadline for short papers (1000 to 1500 words): April 15, 2016.

## North and Central America and the Caribbean

### May 2016

14. 2-5 May: [FOSS4G North America](#)

Raleigh, North Carolina, USA.

15. 10-12 May: CalGIS [2016: 22nd Annual California GIS Conference](#)

Anaheim, California, USA.

16. 25-26 May: [Upper Midwest Geospatial Conference \(UMGEOCON\)](#)

La Crosse, Wisconsin, USA.

### June 2016

17. 7-9 June: [37th Canadian Symposium on Remote Sensing and the 41st Canadian Cartographic Association Conference](#)

Richardson College for the Environment at the University of Winnipeg, Winnipeg, Manitoba, Canada.

Abstract Submission has expired (see previous



Newsletter)

18. 15-17 June: [Cities and Regions: Managing Growth and Change](#)

Georgia Institute of Technology, Historic Academy of Medicine Building, Atlanta, Georgia, USA.

Abstract submission has expired.

## July 2016

19. 26-28 July: [Third International Conference on CyberGIS and Geospatial Data Science](#)

Urbana, Illinois, USA.

## September 2016

20. 5-8 September: [URISA Caribbean GIS Conference Barbados](#)

Abstract submissions has expired (see previous Newsletter).

21. 11-17 September: [International Data Week \(IDW\)](#)

Venue: Denver, Colorado, USA.

The theme of this landmark event is “**From Big Data to Open Data: Mobilizing the Data Revolution**”.

22. 11-16 September: [Research Data Alliance Plenary 8](#)

Denver, Colorado, USA (within International Data Week).

23. 14-16 September: [AutoCarto 2016](#)

Albuquerque, New Mexico, USA.

Early registration discounts end August 1, 2016.

In addition, the ICA Commission of Open Source Technologies will hold a one-day workshop there on September, 14<sup>th</sup>

## October 2016

24. 2-5 October: [69th Canadian Geotechnical Conference](#)

Vancouver, British Columbia, Canada.

## South America

### April 2016

25. 5-9 April: [FOSS4G Argentina](#). Supported by OSGeo and the gvSIG Association FOSS4G Argentina Open/Free Geomatics Conference will be held at the National Institute of Geography (Buenos Aires, Argentina).

Organizada por Geoinquietos Argentina y el Instituto Geográfico Nacional (IGN) de la República Argentina y

con el apoyo de OSGeo y la Asociación gvSIG se realizará la Conferencia FOSS4G Argentina de Geomática Libre. La misma tendrá lugar en el propio IGN (Buenos Aires, Argentina) del 5 al 9 de abril.

### June 2016

26. 23-24: [XI IDERA Conference](#). The XI IDERA (Spatial Data Infrastructure of Argentina) Conference will be held in the city of Neuquen, Province of Neuquen.

Los días 23 y 24 de junio de 2016 se realizarán las XI Jornadas de IDERA en la ciudad de Neuquén, Provincia del Neuquén.

## 5. Webinars

Free and Open Webinar about “Air Sensors Everywhere” on 30<sup>th</sup> of March is the first of a half dozen webinars and kicks off discussions to open critical dialogue, and to establish a community of users who are interested in these approaches. You can find the webinar at <http://blogs.umass.edu/ase/> for those interested in OpenCitySmart or the open source environmental sensors (including the OGC open sensor standards people).

## 6. Courses

- [Triangle Area GIS](#) is a “collaboration site for multidisciplinary GIS users in the Triangle” area of North Carolina. They offer free webinars throughout the year in many GIS and mapping areas, as well as paid training and group meeting planning space.
- Certificate Program in QGIS at Langara College in Vancouver, British Columbia, Canada.

Langara College will be starting a new 5 course certificate program in Geographic Information Systems using QGIS and other FOSS software, starting January 2016.

The courses are:

### ***GISC 1001 - Intro to Geospatial Technology using QGIS***

Explore the world of geographic information systems (GIS) with QGIS, an Open Source software program that offers a free, but powerful, alternative to



commercial GIS programs. Topics include symbology, raster and vector data models, and map composition. The course also provides background theory of GIS concepts such as projections and geocoding.

### ***GISC 1002 - Spatial Analysis using QGIS***

Gain proficiency at using analysis techniques to solve problems that are commonly found in the GIS field. Practice exercises will include both vector and raster data models. These techniques are applicable to a wide range of disciplines.

### ***GISC 1003 - Data Acquisition and Management using QGIS***

Explore the world of geographic information systems (GIS) with QGIS, an Open Source software program that offers a free, but powerful, alternative to commercial GIS programs. Topics include symbology, raster and vector data models, and map composition. The course also provides background theory of GIS concepts such as projections and geocoding. This is a hands-on course, no programming required.

### ***GISC 1004 - Intro to Cartography using QGIS***

Explore fundamental concepts in cartography. Successful students will be able to employ design principles to create and edit effective visual representations of data in different formats. Specific topics include the ethical and appropriate application of map scale, map projections, generalization, and symbolization.

### ***GISC 1005 - Intro to Remote Sensing using QGIS***

Explore the world of remote sensing. Topics include the physical principles on which remote sensing is based, history and future trends, sensors and their characteristics, image data sources, and image classification, interpretation, and analysis techniques.

For more information please see:

<http://langara.ca/news-and-events/langara-news/2015/151120-geographic-information-systems-launch.html>.

- gvSIG application to urban planning (workshop Video):

<http://blog.gvsig.org/2016/01/15/gvsig-application-to-urban-planning/>

Taller de gvSIG aplicado a urbanismo (Videos):

<http://blog.gvsig.org/2016/01/14/taller-de-gvsig-aplicado-a-urbanismo-videos/>

## 7. Training programs

- April 17-26, 2016. "Digital Earth role in sustainable development of territories influenced by significant global climate changes." **Interexpo GEO-Siberia 2016. Novosibirsk, Russia.**

The International Seminar is offered by the International Society for Digital Earth, Siberian State University of Geosystems and Technologies, and M. V. Lomonosov Moscow State University. They will be offering a series of joint scientific events held within XII International Exhibition and Scientific Congress "Interexpo GEO-Siberia 2016" in Novosibirsk, Russia.

### **Among the scientific events are:**

International Seminar "Digital Earth role in sustainable development of territories influenced by significant global climate changes"

VII International Workshop "Early Warning and Crises Management in the Big Data Era"

International Student and Young Researcher Summer School "GI Support of Sustainable Development of Territories in the Conditions of Global Climate Change"

For more information

<http://sgugit.ru/en/geo-siberia/>

<http://sgugit.ru/en/geo-siberia/GEO-Siberia-2016-Brochure.pdf>

<http://www.expo-geo.com/#!english/ap2t9>

- May 30, 2016. The Future of Open Source: SIGOPEN Developmental Workshop at OSS2016. Gothenburg, Sweden (<http://oss2016.cs.tut.fi>)

The workshop welcomes research across a wide range of open source related issues, including development processes, platforms, and tools; individual behaviors and motivations; social, cultural, and organizational factors; economic and business models; legal structures and governance; leadership and coordination. However, reflecting the themes noted above, the CFP will particularly highlight the desirability of research that extends our understanding of:

- the impact of emerging computing paradigms and models on open source software development processes, platforms, licensing, and governance.

- the impact of corporate, non-profit, and public



body participation in open source projects and communities on open source software development processes, platforms, licensing, and governance.

- the impact of open source on the peer-production of other knowledge goods (open hardware, the maker movement, open design and 3D printing, etc.) and on the strategies and operations of organizations (open business models).

Early-bird Registration for Workshops: Friday 15 April 2016.

- MOOC scripting: <http://web.gvsig-training.com/index.php/es/quienes-somos-2/noticias-2/140-massive-online-open-course-de-introduccion-a-scripting-en-gvsig-2-1>

Massive Online Open Course (MOOC, free and continuously open enrollment) about "Introducción a Scripting en gvSIG 2.1" 2nd. edition (Spanish only)

Curso Abierto Masivo en línea (MOOC-modalidad de inscripción gratuita y abierta continuamente) de "Introducción a Scripting en gvSIG 2.1" 2a. edición (en español solamente)

- **GeoForAll educational inventory system, a place to search and share educational materials:** [http://www.osgeo.org/educational\\_content](http://www.osgeo.org/educational_content)

- Registration for online gvSIG: Training courses are now open. They are part of the courses offered by the Certification Program of the gvSIG Association. Unlike previous editions, the registration mode is open for most of the courses, so students can enroll and start the course at any time they want. The courses currently available are:

General gvSIG courses (1)

Applied gvSIG courses (5)

Geoprocessing and Spatial Analysis courses in Spanish and Portuguese (5 in Spanish, 5 in Portuguese)

gvSIG extensions/addons (6)

Geospatial DataBases (1)

Free i3Geo course (1)

By participating in any of these courses you get credits for the gvSIG Certification Program that

allows you to qualify for "gvSIG User" and "Expert gvSIG User" certification.

Ya están abiertas las inscripciones para los cursos a distancia de gvSIG-Training, que forman parte de la oferta del Programa de Certificación de la Asociación gvSIG. A diferencia de las convocatorias anteriores, la modalidad de inscripción pasa a ser de matrícula abierta para la mayoría de los cursos, por lo que el alumno podrá matricularse y comenzar el curso cuando lo desee. Los cursos disponibles actualmente son:

Cursos gvSIG general (1)

Cursos gvSIG aplicado (5)

Cursos Geoprosesamiento y Análisis Espacial, en español y portugués (5 en español 5 en portugués)

Extensiones gvSIG (6)

Bases de Datos Geoespaciales (1)

Curso i3Geo gratuito (1)

Al participar en cualquiera de estos cursos obtienes créditos del programa de certificación gvSIG que te permite optar a la certificación "gvSIG Usuario" y "gvSIG Usuario Experto". [Aquí](#)

- June 14<sup>th</sup> : [LINKing and analyzing Volunteered Geographic Information \(VGI\) across different platforms](#)

*Workshop at 19th AGILE International Conference on Geographic Information Science 2016. Helsinki, Finland.*

**Deadline for Call for Short Paper** (AGILE short paper format): **April 25th 2016.**

- June 21-22, 2016: **"GeoMLA: Geostatistics and Machine Learning Applications in Climate and Environmental Sciences"**.

University of Belgrade - Faculty of Civil Engineering Belgrade, Serbia.

Three parallel workshops (21-22 June 2016):

Mikhail Kanevski: "Machine learning of geospatial data: achievements and new trends"

Tomislav Hengl: "Automated mapping in 2D, 3D, and 2D+T using machine learning"

Milan Kilibarda: "Spatial and spatio-temporal prediction and visualization of climate elements in R"

For registration go to <http://geomla.grf.bg.ac.rs/>



- July 25-26, 2016. **NSF Workshop on Geospatial Data Science in the Era of Big Data and CyberGIS**

Venue: Urbana, Illinois, USA.

The primary goal of this workshop is to bring together thought leaders and cutting-edge researchers from pertinent multidisciplinary communities to explore the frontiers of geospatial data science. Specifically, the two-day workshop aims to:

- ✓ Introduce geospatial big data capabilities (e.g., LiDAR, remote sensing, and location-based social media) for novel applications (e.g., urban sustainability and interdisciplinary studies);
- ✓ Demonstrate cutting-edge cloud computing and cyberGIS tools for scalable spatial data synthesis and enhancing knowledge discovery power based on geospatial big data;
- ✓ Identify spatial data synthesis requirements from representative science drivers;
- ✓ Formulate a core set of questions and problems of geospatial data science; and
- ✓ Discuss foundations and principles of geospatial data science.

## 8. Key research publications

- Call for Papers: Special Issue entitled "Spatial Ecology," to be published in the ISPRS International Journal of Geo-Information, (ISSN 2220-9964).

The submission deadline is 31 May 2016. Submitted papers should not be under consideration for publication elsewhere. We also encourage authors to send a short abstract or tentative title to the Editorial Office in advance (ijgi@mdpi.com).

For further reading, please follow the link to the Special Issue Website at:

[http://www.mdpi.com/si/ijgi/spatial\\_ecology](http://www.mdpi.com/si/ijgi/spatial_ecology).

## 10. New free and open software, open data, etc.

1. Data generated by IGN of Spain is now Open Data: <http://blog-idee.blogspot.com.uy/2015/12/los-datos-del-ign-ya-son-datos-abiertos.html>

On Saturday December 26, it was published in the BOE (Official Newsletter of Spain) Ministerial Order FOM/2807/2015 an announcement that the new Policy of Public Dissemination of the information generated by the National Geographic Institute (IGN) of Spain is approved.

El pasado sábado día 26 de diciembre se publicó en el BOE la Orden Ministerial FOM/2807/2015, de 18 de diciembre, por la que se aprueba la nueva política de difusión pública de la información generada por el Instituto Geográfico Nacional de España.

2. **New Stable release of GRASS 7.0.3**

The new GRASS GIS 7.0.3 release provides **210 stability fixes and manual page improvements** compared to version 7.0.2. Of particular interest is the **new winGRASS 64 bit support**.

*About GRASS GIS 7:* Its graphical user interface supports the user to make complex GIS operations as simple as possible. The [updated Python interface to the C library](#) permits users to create new GRASS GIS-Python modules in a simple way while yet obtaining powerful and fast modules. Furthermore, the libraries were **significantly improved for speed and efficiency**, along with support for [huge files](#). A lot of effort has been invested to standardize parameter and flag names. Finally, GRASS GIS 7 comes with a series of **new modules** to analyse raster and vector data, along with a full temporal framework. For a detailed overview, see the list of [new features](#). As a stable release series, 7.0.x enjoys **long-term support**.

3. New version of [QuickMapServices](#).

QuickMapServices is a QGIS plugin for painless adding basemaps as layers.

4. **GreenPeace of Russia published forest "hot points" map** (in Russian).

Looking at this map, the user can understand quickly which areas are at risk and need special care, and which - have become "hot spots". Areas marked in



green correspond to the areas where forests are changing relatively slowly. Yellow indicates a mild rate of change. Red - are areas where the wood is used or is lost too rapidly.

<http://m.greenpeace.org/russia/ru/high/news/2016/01-18-forest-map/>

[http://www.forestforum.ru/info/SRRI\\_map\\_rus.pdf](http://www.forestforum.ru/info/SRRI_map_rus.pdf)

## 5. Geofabrik's free download server.

This server has data extracts from the OpenStreetMap project which are normally updated every day. Select your continent and then your country of interest from the list at <http://download.geofabrik.de/>.

## 6. New version of **NextGIS Mobile** is out! NextGIS Mobile 2.3: layer creation, tracks export, multipart geometries

New version of [NextGIS Mobile](#) is out! NextGIS Mobile is our GIS app that allows you work with geodata on your smart devices. New version features layer creation, tracks export, support for multipart geometries and much more.

## 7. OSMInfo

Tired of trying to figure out what you're seeing on the map? Ever wondered what are the actual data for a feature on [OSM Mapnik|MapQuest|your favorite OSM basemap]? [OSMInfo](#) is the answer. It shows information about objects from OpenStreetMap using Overpass API.

More information at

<http://nextgis.ru/en/blog/osminfo/>

## 8. gvSIG 2.3 RC1

(English) <http://blog.gvsig.org/2016/02/26/gvsig-2-3-rc1-available-release-candidate-to-final-version/>

The first gvSIG 2.3 RC (Release Candidate) is now available. As most of you know, odd gvSIG versions have changes in a functional level, but also in an architecture level, so it implies a more detailed testing to identify all the possible errors. We ask for your help to test and refine this distribution to have the final one as soon as possible.

(Español)

<http://blog.gvsig.org/2016/02/26/disponible-gvsig-2-3-rc1-distribucion-candidata-a-final-2/> Ya está disponible la primera RC (Release Candidate) de la

versión 2.3 de gvSIG. Como muchos de vosotros ya sabréis, las versiones impares de gvSIG conllevan cambios no sólo a nivel funcional, sino que también se realizan cambios a nivel de arquitectura de la aplicación, lo que implica un testeo más profundo para identificar todos los posibles errores. Por ello os pedimos vuestra ayuda para testear y depurar esta versión de cara a tener lo antes posible la final.

## 9. gvSIG Roads

(English) <http://blog.gvsig.org/2016/01/15/gvsig-roads-roads-management-with-open-source-software/> Roads management with open source software

(Español) <http://blog.gvsig.org/2016/01/13/gvsig-roads-gestion-integral-de-carreteras-con-software-libre/> Solución integral, que permite la gestión de las infraestructuras viarias tanto desde su componente alfanumérica como geográfica, basada en estándares y software libre.

## 10. gvSIG Educa

(English) <http://blog.gvsig.org/2016/01/16/gvsig-educa-a-free-gis-education-prototype/> Free GIS for education Prototype

(Español) <http://blog.gvsig.org/2016/01/11/gvsig-educa-prototipo-de-un-sig-libre-para-educacion/> Prototipo de un SIG libre para educación.

## 11. gvSIG Online

(English)

<http://blog.gvsig.org/2016/02/17/presenting-gvsig-online-the-solution-for-spatial-data-infrastructures-on-open-source-software/> A solution for Spatial Data Infrastructures on Open Source software

(Español)

<http://blog.gvsig.org/2016/02/16/presentando-gvsig-online-la-solucion-a-las-infraestructuras-de-datos-espaciales-con-software-libre/> gvSIG Online es una plataforma integral para la implantación de Infraestructuras de Datos Espaciales (IDE), 100% con software libre. Una solución rápida y potente para poner en marcha la infraestructura necesaria para gestionar de la forma más eficiente los datos espaciales de una organización. Con gvSIG Online podrás fácilmente compartir tu información geográfica en la nube, generar mapas y aplicaciones gracias a las sencillas y potentes herramientas de



administración del sistema. Bases de datos, geoportales, app móvil, SIG Desktop... todos los componentes en una solución integral, libre e interoperable.

12. [OSGeo Live 9.5](#) has launched and is available for download at the link.



## 12. Articles

### Abbreviations

by **Nikos Lambrinos**, Chief Editor

Department of Primary Education, Aristotle University of Thessaloniki, Greece

For those who would like to support this effort, please send any abbreviations to the Chief Editor ([labrinos@eled.auth.gr](mailto:labrinos@eled.auth.gr)).

AAG: Association of American Geographers

AGS: American Geographical Society

AM/FM: Automated Mapping/Facilities Management

ASPRS: American Society for Photogrammetry and Remote Sensing

AURIN: Australian Urban Research Infrastructure Network

CAD: Computer Aided Design

CEOS: Committee on Earth Observation Satellites

CLGE: The Council of European Geodetic Surveyors

COGO: Coordinate geometry

CRS: Coordinate Reference System

CSA: Canadian Space Agency

DAAC: Distributed Active Archive Center (of NASA)

DEM: Digital Elevation Model

DWG: Design file format

DXF: Drawing Interchange File

ECMWF: European Center for Medium range Weather Forecasting

EOS: Earth Observation Science

EOSDIS: Earth Observing System and Data Information System

EPSG: European Petrol Survey Group (used in projection IDs)

ESA: European Space Agency

EUROGI: European Umbrella Organisation for Geographic Information

FOSS: Free and Open Source Software

FOSS4G: Free and Open Source Software For Geospatial

GCP: Ground Control Point

GloFAS: Global Flood Awareness System

GNSS: Global Navigational Satellite System

GPS: Global Positioning System

GPX: GPS Exchange Format

HOT: Humanitarian OpenStreetMap Team

ICA: International Cartographic Association

ICSU-WDS: International Council for Science – World Data System

INSPIRE: Infrastructure for Spatial Information in Europe

ISPRS: International Society for Photogrammetry and Remote Sensing

JAXA: Japan Aerospace Exploration Agency

KML: Keyhole Markup Language

LiDAR: Light Detection and Ranging

LOC: Local Organizing Committee

LOD: Level Of Detail

MoU: Memorandum of Understanding

NAD: North American Datum

NGA: National Geospatial Intelligence Agency

OER: Open Educational Resources



OGC: Open Geospatial Consortium

OSGeo: Open Source Geospatial Foundation

OSM: OpenStreetMap

RCMRD: Regional Centre for Mapping of Resources for Development

ROSHYDROMET: Russian Federal Service for Hydrometeorology and Environmental Monitoring

SDI: Spatial Data Infrastructure

SQL: Structured Query Language

STSM: Short Term Scientific Missions

TIN: Triangulated Irregular Network

UAV: Unmanned Aerial Vehicle

USGIF: United States Geospatial Intelligence Foundation

WCS: Web Coverage Service

WFS: Web Feature Service

WGCapD: Working Group on Capacity Building and Data Democracy

WGS: World Geodetic System

WMO: World Meteorological Organization

WMS: Web Map Service

WMTS: Web Map Tiles Services

WPS: Web Processing Service

## 13. Scholarships for students and staff

- The [2016 Geospatial Skills Competition](#) is accepting submissions from undergraduate students until April 29. This competition aims to showcase the skills of US students in the geospatial field. Three or four winners are expected and will each receive an all-expense paid trip to the Esri User Conference in San Diego, California, in July.
- The [Research Data Alliance \(RDA/US\) Data Share Fellowship Program](#) application deadline is April 18. This fellowship is for graduate students, postdoctoral students, and early career professionals who have self-proposed projects to carry out while engaging with the RDA network. See the link for more details.

## 15. Awards

- **EuroSDR Award 2016 for the best PhD thesis related to Geoinformation science**

The research activities of the European Spatial Data Research (EuroSDR- <http://www.eurosd.net/>) network have developed over time through a collaboration of academia and national mapping agencies. In order to further strengthen the collaboration and to involve young scientists in its research, EuroSDR has established an Award to reward recent PhD theses that have significantly contributed to the development of Geoinformation science in the context of national mapping and cadastral agencies.

In order to be eligible, PhD theses should be defended in the period from 1st August 2015 to 31st July 2016. The PhD topic should be related to one or more of the research areas covered by the EuroSDR commissions. The award applications should consist of:

A cover letter containing the main contribution/impact of the thesis from the perspective of national mapping and cadastral agencies (up to 500 words)

- ✓ A PDF copy of the thesis
- ✓ A certificate showing the PhD defense date
- ✓ Any reviews of the thesis (if available) CV

The submitted application material will be evaluated by a six-member committee approved by the EuroSDR board of delegates. All material must be sent to the EuroSDR secretariat ([eurosdnet@soc.kuleuven.be](mailto:eurosdnet@soc.kuleuven.be)) to arrive no later than 31st August, 2016. Notification of the selected thesis will be sent on 23rd September, 2016. The call is confined to applicants that completed their PhD study in Europe. The author of the awarded PhD thesis will receive an award of 500 EUR and will be invited to present his/her work at the 129th EuroSDR board of delegates meeting to be held in Madrid from 19th to 21st October 2016.

<http://www.eurosd.net/news/eurosd-award-2016-best-phd-thesis-related-geoinformation-science>

Mrs Anneke Heylen, EuroSDR Secretariat p/a KU



Leuven Public Governance Institute Parkstraat bus 3609, 3000 Leuven, BELGIUM, Tel. +32 16/32.31.80  
[www.eurosd.net](http://www.eurosd.net), [admin@eurosd.net](mailto:admin@eurosd.net).



### • UCGIS 2016 Research Award

[Professor Sergio Rey, PhD](#) from Arizona State University, USA, has recently received the [UCGIS 2016 Research Award](#). Sergio and his colleagues at the GeoDa Center at Arizona State University contribute greatly to Open Geospatial Science via [software development](#), outreach through publications and presentations, and [research](#). We at Geo4All are grateful for university research teams like Sergio's, and it is great to see how many universities are establishing dedicated OSGeo research labs, helping further accelerate Open Geospatial Science to the next level. The [GeoDa Centre](#) at Arizona State University is one of the many Geo4All labs in the USA, the country which has the most Geo4All research labs, and the future collaborations with UCGIS will work toward rapidly expanding Open Geospatial Science.

## 17. Ideas / Information

**1. Dr Rafael Moreno (University of Colorado, Denver, USA)** has kindly volunteered to be the main coordinator for Geo4All webinars from now on. His lab at the University of Colorado, Denver in addition to excellent research, teaching and training, have also been running an excellent webinar series. Details at [here](#) and [here](#).

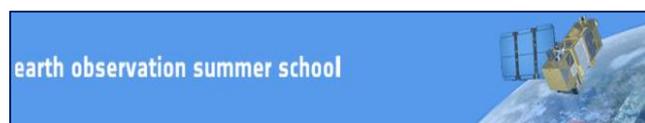
**2. The European Space Agency (ESA)** is inviting young researchers to join leading experts in Earth Observation, Modelling and Data Assimilation for keynote lectures, hands-on computing practical and

poster sessions on the occasion of the 8th ESA EO Summer School. Applications can be made on-line at <https://earth.esa.int/web/eo-summer-school/home>.

Contact: [eotraining@esa.int](mailto:eotraining@esa.int)

**3. The European Space Agency (ESA)** is inviting young researchers to join leading experts in Earth Observation, Modelling and Data Assimilation for keynote lectures, hands-on computing practical and poster sessions on the occasion of the 8th ESA EO Summer School. Applications can be made on-line at <https://earth.esa.int/web/eo-summer-school/home>.

Contact: [eotraining@esa.int](mailto:eotraining@esa.int)



**4. Professor Rick Peltier (Atmospheric Chemist),** leader of the "Air Sensors Everywhere" initiative and Charlie Schweik from the University of Massachusetts, Dept of Environmental Conservation and School of Public Policy, Amherst, are willing to initiate a new effort with a focus specifically on "small air quality sensors." They are trying to build an international community specifically on this topic, which could potentially create a GeoForAll thematic which may also have a direct connection to OpenCitySmart thematic.

Anyone interested in joining please refer to Richard Peltier ([rpeltier@schoolph.umass.edu](mailto:rpeltier@schoolph.umass.edu)) or to Charlie Schweik ([cschweik@pubpol.umass.edu](mailto:cschweik@pubpol.umass.edu)).

**5. There is a new YouTube channel** where we will be posting the Geo4All webinar recordings and other related videos. Subscribe to it (click on red button on right hand side). Check it out:

YouTube Channel

[https://www.youtube.com/channel/UCL1E2akvCNWP\\_nC0p5CpB8g](https://www.youtube.com/channel/UCL1E2akvCNWP_nC0p5CpB8g)



## 18. Social Contributions

### OSM Humanitarian Mapathons

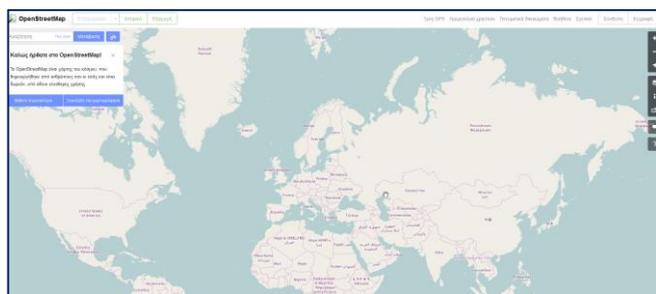
By **Marco Minghini, Ph.D.**

*GEOLab, Politecnico di Milano - Como Campus*

Como (Italy)

[marco.minghini@polimi.it](mailto:marco.minghini@polimi.it) [@MarcoMinghini](https://twitter.com/MarcoMinghini)

[OpenStreetMap](#) (OSM) is the free editable map of the world that everyone can edit. It is the largest geospatial database in existence and includes any kind of cartographic element, from buildings, rivers, and roads to trees, benches, and litter bins. All the data are available with an [open license](#). Data can be freely used, copied and distributed for any purpose, provided that attribution is made to OSM and its contributors.



Among the multiple applications of OSM data, a primary role is played by the humanitarian ones. The leading organizations in this field are the [Humanitarian OpenStreetMap Team \(HOT\)](#) and the [Missing Maps](#) project. While the former coordinates collaborative mapping in the aftermath of natural disasters and humanitarian crises, the latter aims at creating maps in the most vulnerable places of the world where maps do not exist yet.

Coordinated events of humanitarian armchair mapping, i.e. humanitarian mapping actions performed by groups of people from remote, are called mapathons. During mapathons people are required to map a remote area by drawing cartographic elements on top of satellite imagery. Indeed Microsoft Bing, Mapbox, and other providers of aerial and satellite imagery have ensured permission of using their products to derive OSM

data. The humanitarian armchair mapping projects are managed by the [HOT Tasking Manager](#), an open source tool which facilitates user collaboration when mapping an area. An introduction on humanitarian remote mapping and the Tasking Manager is available [here](#).

How to organize a mapathon? Missing Maps provides some step-by-step recommendations [here](#) and [here](#); however, the only two things you will really need are some generous volunteers and a lot of enthusiasm!

During March 2016 the GEOLab (Geomatics and Earth Observation laboratory) of Politecnico di Milano (Italy), one of the GeoForAll labs, has organized two humanitarian mapathons:

[OSM MiniMapathon – March 3, 2016](#): Two hundred and twelve 10-year-old children were involved in a world-record humanitarian mapathon focused on [Task #1577](#) – West Swaziland - Malaria Elimination Programme. The results have been great, and HOT also complimented the children and the organizers with a [post](#) on its blog.

[Mapathon GEOLab – March 21, 2016](#): A mapathon organized by the GEOLab staff but open to everyone from all around the world. About 20 people contributed in mapping [Task #1671](#) – West Harare, Zimbabwe.