#### Volume 3, No. 1

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GeoForal

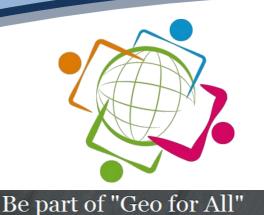
Monthly Newsletter

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# **1. Activities of the Network**

 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. (http://www.meetup.com/Ottawa

OSGeo/).

The Geography Department of Ferdowsi University of Mashhad, Iran (member 108 of the Network) announced that their web page (http://geoforall.um.ac.ir/index.ph p?lang=en) and Email: geoforall@um.ac.ir are ready and asking for new members to join. Also, they did a presentation of GeoForAll on GIS Day and had the Logo of GeoForAll on their cake of the event!

> **دانشگاه فردوسی مشهد** ج*یزینی* تقاهم نامه بین المللی آموزش رایگان علوم جغرافیایی - Geo For All

## 2. Lab of the Month

Texas A&M University -Corpus Christi, USA

By Suchith Anand



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

Dear Geo4All Colleagues,

On behalf of GeoForAll and the Open Source Geospatial Foundation, let me take this opportunity to wish you and your families a very Happy New Year 2017 [1] and a successful year ahead. It is also my great pleasure to introduce our colleagues at Texas A&M University - Corpus Christi, USA, as our "GeoForAll" lab of this month in the New Year.

The Spatial {Query} Lab [2] at Texas A&M University - Corpus Christi [3] has a mission of making spatial technology, education, and information accessible to everyone. A large part of meeting this mission is the continued development and maintenance of the GeoAcademy curriculum

(http://spatialquerylab.com/foss4gacademy-curriculum/).







## **Editorial Board**

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

Chief Editor	Nikos Lambrinos, Professor, Dept. of Primary Education, Aristotle University of Thessaloniki, Greece. President of the Hellenic digital earth Centre of Excellence <u>labrinos@eled.auth.gr</u>	Oceania
Co-editor	Rizwan Bulbul, Assistant Professor of GIScience Head of Geospatial Research and Education Lab Department of Space Science, Institute of Space Technology, Islamabad, Pakistan <u>bulbul@grel.ist.edu.pk</u>	India, Sri Lanka, Pakistan, Afghanistan, Nepal, Burma, Iran, Iraq, Jordan, Syria, Israel, Lebanon, Turkey, Saudi Arabia, Oman, Yemen, United Arab Emirates, Kuwait and Islands of S. Pacific.
Co-editors	Pavel Kikin, Senior Lecturer "Department of applied informatics and IT", Siberian State University of Geosystems and Technologies Alexey Kolesnikov, Senior Lecturer "Department of cartography and GIS", Siberian State University of Geosystems and Technologies <u>it-technologies@yandex.ru</u>	Russia, Mongolia, China, Japan, S. Korea, Vietnam, Thailand, Malaysia, Laos, Myanmar, Cambodia, Singapore, Brunei, Indonesia, Philippines, Turkmenistan, Uzbekistan, Tajikistan and Kyrgyzstan.
Co-editor	Rania Elsayed , Computers & Information Researcher, Division of Scientific Training & Continuous Studies, National Authority for Remote Sensing & Space Sciences, Cairo, Egypt. <u>ranyaalsayed@gmail.com</u>	Africa
Co-editor	Elżbieta Wołoszyńska-Wiśniewska (Ela), Head of Education Unit UNEP/GRID-Warsaw Centre <u>ela@gridw.pl</u>	Scandinavian countries, Denmark, Germany, Belgium, The Netherlands, Poland, Estonia, Latvia, Lithuania, Belarus, Ukraine, Czech Republic, Slovakia.
Co-editor	Antoni Perez Navaro, Associate Professor at Universitat Oberta de Catalunya (UOC) Computer Sciences and Multimedia Department <u>aperezn@uoc.edu</u>	Portugal, Spain, France, U.K., Ireland, Iceland, Luxemburg, Italy, Switzerland, Austria, Hungary, The Balkans.
Co-editor	Emma Strong, GIS Coordinator with Southern Mississippi Planning and Development District <u>eestrong118@gmail.com</u>	North and Central America
Co-editor	Sergio Acosta Y Lara, Departamento de Geomática Dirección, Nacional de Topografía, Ministerio de Transporte y Obras Públicas, URUGUAY <u>sergio.acostaylara@mtop.gub.uy</u>	South America
Production Designer	Nikos Voudrislis, MSc, PhD in geography education. nvoudris@gmail.com	Design and final formation of the newsletter





## GeoForAll Regional Chairs and Contact Information

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## North America Region

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

Email: na.gfa.chair@osgeo.org

### South America Region

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

Email: 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 <u>http://lists.osgeo.org/cgi-</u> <u>bin/mailman/listinfo/geoforall-africa</u>

Email: africa.gfa.chair@osgeo.org

## Asia Region (including Australia)

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

Email: asia.gfa.chair@osgeo.org

### **Europe Region**

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

Email: eu.gfa.chair@osgeo.org

# **GeoForAll Themes**

OpenCity Smart

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

Mail list: <u>http://lists.osgeo.org/cgi-bin/</u> 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: <u>geoforall-teachertraining@lists.</u> <u>osgeo.org</u>

➤ Website:

http://wiki.osgeo.org/wiki/GeoForAll TeacherTrai ning SchoolEducation

 GeoForAll (GeoParaTodos) Themes in Spanish

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

Mail list: Spanish : <u>geoforall-spanish@</u> <u>lists.osgeo.org</u>

> Website:

http://wiki.osgeo.org/wiki/GeoForAll Spanish

CitizenScience

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

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

> Website:

http://wiki.osgeo.org/wiki/Geocrowdsourcing\_Citi zenScience\_FOSS4G

AgriGIS

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

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

Website: <u>http://wiki.osgeo.org/wiki/Agrigis</u>





continued from page 1



Richard Smith (Assistant Professor and Program Coordinator of GISc/GSEN) said:

"Over the past several months, we have been working to update the labs to match the latest versions of QGIS, GRASS, and Inkscape, as well as releasing related lecture materials. Combined, the GeoAcademy curriculum offers five college-level courses of content, all Creative Commons licensed and freely available to all who wish to use it. As an example of recent use, the GeoAcademy curriculum is being used as the inaugural curriculum for the UN Open GIS Initiative where we are currently teaching our third cohort of students and will be teaching the fourth and final cohort starting in December. Students at the Spatial {Query} Lab worked hard to get the curriculum updated to QGIS 2.14 for the course and are thrilled that their work is having an immediate benefit and being used by the UN Open GIS Initiative. The beauty of maintaining this type of open curriculum is seeing its adoption, use, and collaborations that are taking place. Another project we are working on at the Spatial {Query} Lab is our map scanning project (http://spatialquerylab.com/projects/map-scanning/) where we are scanning, cataloging, transcribing, and rectifying tens of thousands of historic maps from South Texas (we occasionally blog about interesting things find as we scan them we at: http://spatialquerylab.com/tag/find-of-the-week/)."



"We will begin publishing this collection online to the public, for free, starting in Spring 2017. Something we are particularly proud of is the software we wrote to operationalize our scanning project, BandoCat, has been so useful to us, and, as we have demonstrated it to others, looks to be potentially useful for them, we are going to be open sourcing the BandoCat software beginning in Spring 2017 in the hopes that it can be useful to others who are looking at digitizing hard copy maps and documents."

Thank you Richard for these excellent updates from your lab. This is truly amazing work you and colleagues are doing.



On behalf of the GeoForAll community, we thank Richard Smith and all colleagues the Texas A&M University - Corpus Christi, USA, for their help and for their contributions to the GeoForAll initiative, and we look forward to working and building more collaborations with all interested on this education mission. We believe in empowering people with spatial decision making tools to help build a better society for all of humanity. Open principles in





geoeducation (open educational resources, free and open software, open data, open standards, etc.) are key for true empowerment of staff and students globally and 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.

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Millions of globally connected minds working together on the common mission of enabling Open Education opportunities for everyone will be key for making these developments possible. An idea whose time has come is the most powerful force in the universe, and the time for "Access to quality education opportunities for everyone" has arrived. We look forward to working and building collaborations with all interested in this education mission.

Happy Year of Open 2017.

Best wishes,

Suchith Anand

[1]<u>http://opensourcegeospatial.icaci.org/2017/01/ha</u> ppy-year-of-open-2017/

[2] http://www.spatialquerylab.com

[3] <u>http://gisc.tamucc.edu</u>

# B) GeoAmbassador of the Month

#### Dr. Mark Ware

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

#### Dear colleagues,

It is my great pleasure to introduce Dr. Mark Ware of the University of South Wales, UK, as our GeoAmbassador of the month. Mark is a Reader in GIS at the University of South Wales. His research



include interests automated map generalization, GIS-based optimization algorithms, GIS for disaster management, spatial data structures, and Open GIS. Source He has studied, researched, and worked in GIS since 1989.

During that time, he has been involved in many GIS teaching, research, and consultancy projects with partners that include BECTA, Ordnance Survey, BGS, MULRI, Environment Agency, West Coast Energy, and Admiral. Mark regularly presents research results in the academic literature and enjoys attending and presenting at conferences.

University of South Wales (previously the University of Glamorgan) has been active in the fields of GIS education and research for over 30 years. Most of this activity is carried out by the university's GIS Research Unit (<u>http://gis.research.southwales.ac.uk/</u>), which is currently led by Prof Gary Higgs. The unit has always been based in a computing department; it is currently part of the School of Computing and Mathematics. This has meant that much of its teaching and research has looked at GIS from a computing perspective. Mark was key lead in helping establish the **first Open Source Geospatial lab in Wales** when in November 2013 the unit joined GeoForAll, and it became the first Open Source Geospatial lab in Wales.

# Mark Ware provided the following updates on FOSS GIS and Teaching at USW

"GIS is taught at both undergraduate and postgraduate level; USW is proud to have delivered one of the UK's first Masters programme dedicated fully to GIS. Traditionally, our teaching has made extensive use of proprietary software. While still using this software on some of our modules, in recent years FOSS has played a significant role in our delivery. At undergraduate level, QGIS is used extensively as a means of introducing first-year mainstream computing students to the world of GIS. The fact that the software is readily and freely available for



download and installation make it an attractive option. Students almost always like the subject - we try our best to make their studies as interesting and relevant as possible. This is achieved by emphasising the computing aspects (such as discussing underlying algorithms, talking about and demonstrating the ability to create plugins, and emphasising good data modelling and design) and by the use of data sets and example applications that are local (this is facilitated to a large extent by access to open data products such as OSM and <u>https://data.police.uk/</u>). Second and third year students have dedicated modules in which they can learn about spatial databases (PostgresSQL/PostGIS) and web mapping (GeoServer, OpenLayers, and Leaflet); the emphasis here is on the implementation, deployment, design, and administration of systems, rather than simply their use and application. Our post-graduate teaching places more importance on the applications of GIS, with modules often being taken by students from courses in other academic subject areas (including geography, environmental studies, and BIM); QGIS is again the primary software used. The group also has experience of delivering short courses in GIS to local businesses and organisations. The most recent of these, which took place at USW in June 2016, was a free Introduction to GIS course. This was organised and sponsored by WISERD (http://www.wiserd.ac.uk/) and focused on the use of QGIS and freely available socio-economic data sets.

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"USW has a strong-track record in GIS research, with notable success in various areas, including: automated cartographic design (map generalization and label placement), terrain modelling, data compression, accessibility modelling, and population estimation modelling. Here are some examples of some of our more recent projects, each of which involves the development or application of opensource solutions:

"One of the first FOSS projects undertaken at USW involved the design and implementation of an online geoportal, the main function of which is to enhance the ability of researchers to search for and find socioeconomic research data relating to Wales. The aim is to encourage collaborative research and re-use of This work was carried out as part of our data. involvement with The Wales Institute of Socio-Economic Research, Data and Methods (http://www.wiserd.ac.uk/). The portal was built using various open-source technologies, including PostgresSQL, PostGIS, GeoServer, Apache, OpenLayers and GeoExt. It was developed by Dr Richard Fry (now at Swansea University, UK) and Dr Rob Berry (now at the Countryside and Community Research Institute, UK).

"A recently completed project<sup>1</sup> has considered ways of improving crowdsourced mapping in developing countries (particularly in East Africa) for the purposes of disaster preparedness. In many developing countries, maps of vulnerable region tend to be low resolution and/or not up to date. There are many examples of crowdsourced mapping initiatives that have taken place after a disaster has occured, but the geographic information becomes available perhaps days or weeks later. By populating digitals map before a potential disaster, various advantages may be gained, including the information being available at the outset of disaster response. The project focused specifically on the Mbale region of Uganda, with which USW has close links. At the beginning of the study, the region was poorly mapped. Early in the project, its main investigator, Dr Dave Farthing, ran several courses in Mbale to train locals in the use of GIS and GPS for data gathering and data analysis (see image below). The project identified competing factors that either inspire/discourage communities to/from adopting and using mapping technologies. The main output from the project is a new model (called the TASUT model) for encouraging technology acceptance and sustained use in the context of digital mapping in developing countries, together with an accompanying set of detailed guidelines for its application. These guidelines suggest (along with many other things) that appropriate training, the use of free open-source GIS, the adoption of standard data formats and making GI available under an open or Creative Commons license are all key to promoting the initial acceptance and then sustained use of mapping technologies. The hope is that we can make

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apply, and further develop, the TASUT model and its guidelines in future mapping/GIS projects – please get in touch if you are interested in collaborating!

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"A soon to be completed PhD project (being undertaken by Jon Britton and supervised by Dave Kidner) has considered the problem of spatial data processing on the web using open standards and open source software. To date the work has produced a detailed specification for a generic web-based GIS client application able to access data and processes provided by standard geospatial services. This specification has been used to develop a prototype browser-based GIS application based on existing open-source software. The prototype, named SmartWPS, can integrate data from standard sources, such as WFS, WCS and WMS, and process this data using remote WPS."

Geo for All is committed to working toward the vision of the United Nations 2030 Agenda for Sustainable Development for building a better world for everyone [1]. Open Education is the simple and powerful idea that the world's knowledge is a public good and that technology in general and the internet in particular provide an extraordinary opportunity for everyone to share, use, and reuse knowledge. Openness is key for true empowerment and sustainability [2].

We are proud to honor Mark as our GeoAmbassodor and we are extremely grateful for his contributions to Geo For All.

Best wishes,

#### Suchith Anand

[1] <u>http://icaci.org/maps-and-sustainable-</u> <u>development-goals/</u>

#### [2]

http://opensourcegeospatial.icaci.org/2016/07/shari ng-is-caring-why-openness-is-key-for-trueempowerment-and-sustainability/

## 4. Conferences

#### <u>Asia</u>

#### January 2017

**1.** 22-25 January. Geospatial World Forum conference at Hyderabad, India

**2.** 26-29 January. FOSS4G-ASIA 2017 conference at IIIT-Hyderabad, India.. Details at <u>http://www.foss4g-asia.org/2017/</u>.

#### March 2017

**3.** 20-21 March: Global Forum for Innovations in Agriculture (GFIA)

Deadline August 31st. Abu Dhabi National Exhibition Centre, UAE. More details <u>here</u>

### <u>Africa</u>

#### <u>June 2017</u>

**4.** 27-30: OSS4G Southern Africa overlap with GeoforAll + SAGTA conference

Venue: Johannesburg South Africa

A draft programme is at https://qgis.org.za/events/foss4g-southern-africaand-qgis-user-group-conference/

#### Europe

#### March 2017

**5.** 21 March: 1st International Workshop on Big Geo Data Quality and Privacy (BIGQP 2017)





Venue: Venice, Italy <u>http://www-etis.ensea.fr/BigGeoQ-UP/BIGQP2017</u> **6**. 21-24 March: EDBT/ICDT Joint Conference Venue: Venice, Italy <u>http://edbticdt2017.unive.it/</u>

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#### <u>April 2017</u>

**7.** 23-28 April: <u>European Geosciences Union General</u> <u>Assembly 2017</u>.

Venue: Vienna – Austria Important deadlines: January 11, 2017 (13:00 CET): Deadline for Abstract submission

#### July 2017

**8.** 10-14 July: XVI Biennial IASC <u>global conference</u> Practicing the Commons

Venue: Utrecht, the Netherlands.

# North and Central America and the Caribbean

#### February 2017

**9.** 22-24 February: <u>North Carolina GIS Conference</u> Raleigh, North Carolina, USA.

#### March 2017

**11.** 20-24 March: <u>The World Bank Land and Poverty</u> <u>Conference 2017: Responsible Land Governance -</u> <u>Toward an Evidence Based Approach</u> Washington, DC, USA.

#### July 2017

**11.** 2-7 July: 28th International Cartographic Conference (ICC) of the International Cartographic Association.

Washington, DC, USA

#### August 2017

**12**. 14-19: <u>FOSS4G Boston</u>. Boston, Massachusetts, USA. Registration and call for papers opens February 1

## 7. Training programs

GeoForAll educational inventory system, a place to search and share educational materials: http://www.osgeo.org/educational content

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

1. Version 10.0 of the OSGeo-Live GIS software collection has been released and can be downloaded from: <u>https://sourceforge.net/projects/osgeo-live/files/10.0/</u>

Picking the right image for you:

osgeo-live iso: 3.9 GB

A Lubuntu based bootable image, which can be copied to an 8 Gig USB thumb drive (faster and recommended) or DVD (cheaper). It can also be used to build a virtual machine from scratch.

#### osgeo-live-vm: 3.3 GB

This is a pre-made virtual machine (.vmdk), based on osgeo-live, suitable for use in VirtualBox, VMWare, KVM and other virtual machine applications. It has been compressed using 7-Zip.

#### amd64 or i386 architecture

ISO images are available for recent amd64 hardware (recommended) as well as older i386 hardware.

#### md5 checksum

You can use the md5 checksum to verify the image downloaded successfully.

System Requirements

Minimum suggested system resources: 1 GB RAM (2 GB are better for trying Java based applications), 1GHz i386 or amd64 compatible CPU. No hard drive required. Mac users will benefit from a 3-button USB mouse.





**2.** gvSIG 2.3 RC2 is now available: <u>https://blog.gvsig.org/2016/08/10/gvsig-2-3-rc2-is-now-available/</u>

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**3.** Release 3.6.0 of GEOS (Geometry Engine, Open Source) is available here:

http://download.osgeo.org/geos/geos-3.6.0.tar.bz2

MD5: 55de5fdf075c608d2d7b9348179ee649

**4.** SIG Open Source to edit in the web geographic information, <u>map.geowe.org</u>

**5.** *GeoServer* **2.10.0**: The GeoServer team is delighted to announce the release of GeoServer 2.10.0 (<u>http://geoserver.org/release/2.10.0/</u>), which includes a <u>security fix</u>, so please consider upgrading to 2.10.0 or 2.9.2 as soon as possible.

#### 6. pgRouting Version 2.3.1

Bug fixes

Leaks on proposed max\_flow functions

Regression error on pgr\_trsp

Types discrepancy on pgr\_createVerticesTable

Read the documentation of this release at <u>http://docs.pgrouting.org/2.3/en/doc/index.html</u>

To see the full list of changes check the list of <u>Git</u> <u>commits</u> on Github.

To see the issues closed by this release see the <u>Git</u> <u>closed issues</u> on Github.

7. **PostGIS2.3.1:** The PostGIS development team is happy to release PostGIS 2.3.1. This is best served with pgRouting 2.3.1. As befits a patch release, the focus is on bugs and breakages.

Source:

http://download.osgeo.org/postgis/source/postgis -2.3.1.tar.gz

Docs PDF: http://download.osgeo.org/postgis/docs/postgis-2.3.1.pdf

Doc Html: http://download.osgeo.org/postgis/docs/dochtml-2.3.1.tar.gz

# **11. Free Books,** educational materials, etc.

- FOSS4G 2016: gvSIG Video recordings: <u>https://blog.gvsig.org/2016/08/26/foss4g-2016-gvsig-video-recordings-1/</u>
- Free gvSIG Tutorial in English: Analyzing skatepark location in New York city in relation with graffiti cleaning complaints using gvSIG

There's a new free tutorial about gvSIG in English, provided by Marwa Hassan, from Abu-Dhabi (United Arab Emirates).

This new document is a project that analyzes if skatepark location in New York city are related to graffiti cleaning complaints, using geoprocessing tools in gvSIG.

Two different documents are provided:

- A short document where only the tools to do that analysis are used.
- A long tutorial where that analysis is complemented with other tools, and almost all the main gvSIG functionalities are used in it (layouts, geoprocessing, symbology, labelling, editing tools...).

At the beginning there's a section where how to download the cartography is explained.

Downloads are available here: <u>Long document–Short</u> <u>document</u>.

- New free book in Spanish. The book is about GIS and costal environments. You can download the book at http://www.tysmagazine.com/librogratuito-sistemas-informacion-geografica-lagestion-integral-del-litoral/
- O'Really offers free books of programming. They are free in the sense of money ("gratis" in spanish or catalan), but not free in the sense of freedom to modify ("libre" in spanish) <u>http://blogidee.blogspot.com.es/2016/10/libros-gratuitos-deprogramacion.html</u>

<sup>&</sup>gt; Two open access papers on cloud computing for



big data challenges by Chaowei Phil Yang,. The first one uses four scientific examples to illustrate that how cloud computing can help address big data challenges. The second one is a comprehensive review about source domains, challenges, solutions, technological revolutions, and innovations for research and business in the following years. http://www.sciencedirect.com/science/article/pii/ S0198971516303106/pdfft?md5=bdd1e3a06bc8c4 61da641eaab1194ae0&pid=1-s2.0-S0198971516303106-main.pdf

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http://dx.doi.org/10.1080/17538947.2016.123977 1

- New blog for the spatial data infrastructure <u>http://blog-</u> <u>idee.blogspot.com.es/2016/11/youthmappers.htm</u> <u>l</u> (in Spanish)
- Geospatial Analysis A comprehensive guide and free web-based GIS resource

Edited by Dr Michael de Smith and Prof Paul Longley, University College London (UK), and Prof Mike Goodchild, UC Santa Barbara (USA) http://www.spatialanalysisonline.com/HTML/inde x.html

Free PDF downloads of introductory how-to guides related to GIS from the "for Dummies" series available here: <u>http://monde-geospatial.com/10-geospatial-e-books-for-dummies-to-download/</u>



## **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 (<u>labrinos@eled.auth.gr</u>).

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

BIM: Building Information Modelling

CAADP: Comprehensive African Agricultural Development Programme

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

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EPSG: European Petrol Survey Group (used in projection IDs) ESA: European Space Agency EUROGI: European Umbrella Organisation for **Geographic Information** EuroSDR: European Spatial Data Research 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 LiDARL: Light Detection and Ranging LOC: Local Organizing Committee LOD: Level Of Detail MIL: Media and Information Literacy MoU: Memorandum of Understanding NAD: North American Datum NEPAD: NEw Partnership for African Development 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 Hydrometeorologyand Enviromental Monitoring RUFORUM: Regional Universities Forum for capacity building in agriculture SDI: Spatial Data Infrastructure SQL: Structured Query Language STISA 2024: Science Technology Innovation Strategy for Africa 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 WISERD: Wales Institute of Social & Economic Research, Data & Methods WMO: World Meteorological Organization WMS: Web Map Service WMTS: Web Map Tles Servises WPS: Web Processing Service





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## **17. Ideas / Information**

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**1.** 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



Geo4All Webinars

2. We would like to welcome Center for Agricultural Networking and Information Sharing, Nairobi, Kenya, as our 114<sup>th</sup> member. Contact person is Kiringai Kamau (kiringai@gmail.com).

3. On behalf of "GeoForAll", we would like to welcome strong global participation for the fifth edition of the NASA Europa challenge 2017. The aim of this challenge is to inspire ideas for building great applications that serves the INSPIRE Directive and uses NASA's open source virtual globe technology World Wind. Details at http://eurochallenge.como.polimi.it/



This NASA challenge attracts the best minds to develop their ideas covering a broad range of domains from transportation to air quality to linked data. Your challenge, simply build a great application that serves some aspect of the OpenCitySmart design (<u>http://wiki.osgeo.org/wiki/Opencitysmart</u> <u>https://www.youtube.com/watch?v=aWuMfMMPfP</u>

w) and uses NASA's open source virtual globe technology, WebWorldWind. By doing this you will advance a platform that allows every city to win! This challenge is open to all on our home planet. Details at http://opensourcegeospatial.icaci.org/2017/01/invita tion-to-nasa-citysmart-challenge-solutions-forsustainable-cities-2/



4. "Geo4All is now represented on twitter: https://twitter.com/Geo4All\_

Twitter is a great tool to reach a wide audience to spread the great work of the initiative. Please follow us on Twitter"

