September 2015 Volume 1, No. 2

## GeoForA





Monthly Newsletter



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## **Editorial**

Although someone would think that in the middle of the summer (for the North Hemisphere) there would not be as much news as in the previous issue of August, the facts are against them. There is some news even in August to be published in September's issue. There are some very interesting activities and information/invitations to follow. Also, the Conferences section is still full of announcements although some of them have been already announced in the previous issue. In fact, this will be our policy: we will keep publishing those Conferences until they are organized, just as a reminder to our members.

I would like also to apologize for the wrong names (or the wrong prize depending on which you read first) of the Award Winners in the previous issue. The Winners' names announced in August issue belong to those groups who won the prizes of the NASA World Wind Europa Challenge. The correct names are added in this issue. My sincere apologies to the winners of all prizes.

## 1. Activities

- Members should be aware that there is a Geo4All meeting and presentation at FOSS4G 2015 (in Seoul, S. Korea) in September (see Conferences section).
- Kurt Menke (kurt@birdseyeviewgis.com), **GISP** Bird's Eye at View (www.BirdsEyeViewGIS.com),

Albuquerque, USA, has worked for several years with the National Library of Medicine to document and teach a minority public health mapping workflow. They've outlined and taught a workflow from A) field mapping with smart phones/tablets, B) bringing the data into QGIS to combine with other datasets to tell a story/analysis, and C) dissemination over the web via CartoDB or GIS Cloud. This link is the project synopsis: http://communityhealthmaps.nlm.nih.gov /about/. The basic goal is to empower minority communities by teaching them to collect and work with their own data, versus what is sent to them.

He has been authoring a blog Community Health Mapping http://communityhealth maps.nlm.nih.gov/. The blog is written at a layperson level of technical detail and serves to keep the workflow current with rapidly developing technology. It also is a forum for case studies and new advances in community health mapping tools. There are several case studies written by guest bloggers.

One of these was written by several high school students on a poor island near Charleston, SC, who were trained to map their neighborhood in an afternoon http://communityhealthmaps.nlm.nih.gov /2015/02/11/community-health-mapsconducts-a-training-in-the-south-carolinalowcountry/.











## **Editorial Board**

Please refer to the appropriate person according to the following table:			
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## **GeoForAll Regional Chairs and Contact Information**

#### **North America Region**

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

Email: na.gfa.chair@osgeo.org

#### **South America Region**

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

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 <a href="http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-africa">http://lists.osgeo.org/cgi-bin/mailman/listinfo/geoforall-africa</a>

Email: africa.gfa.chair@osgeo.org

### Asia Region (including Australia)

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

Email: asia.gfa.chair@osgeo.org

### **Europe Region**

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

Email: eu.gfa.chair@osgeo.org

## **GeoForAll Themes**

- Urban Science City Analytics: "CitySmart App Road Map"
  - Chairs: Chris Pettit (Australia), Patrick Hogan (USA)
  - ➤ Mail list: <u>geoforall-</u> urbanscience@lists.osgeo.org
- Website:
  <a href="http://wiki.osgeo.org/wiki/GeoForAll Urba">http://wiki.osgeo.org/wiki/GeoForAll Urba</a>
  <a href="https://www.nscience-cityAnalytics">nScience CityAnalytics</a>
- Teacher Training & School Education
  - Chairs: Elżbieta Wołoszyńska-Wiśniewska (Poland), Nikos Lambrinos (Greece), Adrian Manning (UK)
  - Mail list: geoforallteachertraining@lists.osgeo.org
  - Website:
    <a href="http://wiki.osgeo.org/wiki/GeoForAll Teac-herTraining SchoolEducation">http://wiki.osgeo.org/wiki/GeoForAll Teac-herTraining SchoolEducation</a>
- GeoForAll (GeoParaTodos) Themes in Spanish
  - Chairs: Sergio Acosta y Lara (Uruguay), Antoni Pérez Navarro (Spain)
  - Mail list: Spanish: geoforallspanish@lists.osgeo.org
  - Website:
    <a href="http://wiki.osgeo.org/wiki/GeoForAll Spanish">http://wiki.osgeo.org/wiki/GeoForAll Spanish</a>











## 2. Lab of the Month

## University of Colorado Denver's FOSS4G Lab, USA

#### By Suchith Anand



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

Dear GeoForAll Colleagues, It is my great pleasure, to introduce our colleagues at University of Colorado Denver's FOSS4G Lab as our "Geo4All" lab of the month. The University of Colorado FOSS4G Denver Lab was established officially in September of 2014 (http://geospatial.ucdenver.ed u/foss4g/).

A steering committee composed of passionate students, staff and faculty from several departments across the university (http://geospatial.ucdenver. edu/foss4g/faculty) worked on setting up priorities for development and an agenda of activities for the spring of 2015. Their participation has been fundamental for being able to carry out all the activities and work done in the lab so far. From the beginning an External **Board** composed of distinguished Advisory from industry, professionals government, academia in the USA and abroad was created to provide advice and guidance (http://geospatial.ucdenver.edu/foss4g/ advisoryboard).

The aim of the FOSS4G Lab at the University of Colorado Denver (UCD) is to fulfill a growing demand for education, research, and service in Free and Open Source Software for Geospatial applications (FOSS4G) development and applications by citizens, businesses, governments, educators, students, researchers, and geospatial working professionals in the Front Range of Colorado and beyond.

The University of Colorado Denver's FOSS4G Lab is led by Dr. Rafael Moreno-Sanchez (Associate Professor, Department of Geography and Environmental Sciences, UCD). Rafael has a Bachelor's degree in Forestry and PhD in Natural Resources Management. He has worked as a researcher for the National Institute for Forestry, Agriculture and Livestock Research and served as the Director of the National Center for Forest Ecosystems Conservation and Management in Mexico. He teaches courses in GIS science and technology, environmental science, and sustainability in natural resources management. His research concentrates on fragmentation and estimation of anthropogenic pressure on the forest areas (most recently in Mexico and Costa Rica), Decision Support Systems for Forest Management, and the use of Geospatial Open Source Software for creating local and Web-based spatial information systems.

The FOSS4G Denver lab is supported by a diverse group of faculty from the College of Liberal Arts and Sciences and the College of Architecture and Planning, all of whom have a particular interest in Open Principles in Education. The faculty collective is constantly expanding into new departments and colleges, adding to the breadth of knowledge and expertise in Geospatial Science. The lab faculty include Dr. Peter Anthamatten, Dr. Joshua French, Michael Hinke, Dr. Wesley Marshall, Dr. Carolyn McAndrews, Dr. Rafael Moreno-Sanchez, Dr. Deborah Thomas, Dr. Austin Troy, Dr. Amanda Weaver, Dr. Michael Wunder, Suzanne Anderson, Tim Stalker and Valerie Kraucunas. Details at

#### http://geospatial.ucdenver.edu/foss4g/faculty.

FOSS4G Lab at UCD also offers a wide diversity of geospatial training with certificate programs in the Department of Geography and Environmental Science, the College of Architecture and Planning, and the School of Engineering. More details of the University of Colorado Lab at http://geospatial.ucdenver.edu/foss4g/home-2

FOSS4G Lab at UCD has also been running a very successful webinar series with a wide range of topics from the FOSS examples from the National Renewable Energy Laboratory to Open Source GIS Professional Discussion Panel. All their webinars are freely available for all at <a href="http://geospatial.ucdenver.edu/foss4g/resources/webinars">http://geospatial.ucdenver.edu/foss4g/resources/webinars</a>.









### 3. Events

 The European Space Agency (ESA) is organizing the first Hackathon on community coding of opensource toolboxes for Sentinel missions. The event will be held on 15-16 Oct 2015 in ESRIN following the community consultation meeting on Earth Observation Open Science 2.0. Developers are welcome to apply before 10.09.2015 following indications available on

http://www.eoscience20.org.

We would like to thank Karl Donert, President of EUROGEO and Director at Innovative Learning Network Ltd., who had the opportunity to spread the ideas of GeoForAll initiative at the IGU Regional Congress in Moscow on 18<sup>th</sup> August 2015. His lecture was on "Leadership in Geography Education" and you can find the slides of his presentation at

http://www.slideshare.net/karldonert/leadership-in-geography. More than 4000 participants attended the congress including Prof. Vladimir Kolossov (President IGU) and Prof Gordon McBean (President of ICSU). As Karl Donert said, "...in terms of the IGU, they announced their UNESCO International Year of Global Understanding (IYGU) will start in 2016 (see <a href="http://www.global-understanding.info/">http://www.global-understanding.info/</a> for more). This relates closely to Sustainable Development Goals and would be a great initiative for GeoforAll to connect with. They could possibly use some open source support for their actions ... and this can raise even further the "GeoforAll" banner."

 The first Open Source Geospatial Lab in Russia is now established at the Siberian State University of Geosystems and Technologies (SSUGT). Details at <a href="http://sgugit.ru/en/collaboration/international-cooperation/siberian-opensource-geospatial-lab/">http://sgugit.ru/en/collaboration/international-cooperation/siberian-opensource-geospatial-lab/</a>.



### 4. Conferences

#### Asia

- Next International Conference of FOSS4G will take place in Seoul, South Korea, in September, 14-19, 2015 (http://2015.foss4g.org/).
- 2. Malaysia

GeosmartAsia is the premioum conference in Asia Pacific bringing together diverse stakeholders of geospatial technology and geoinformation. The Conference will be held in Kuala Lumpur, Malaysia, from September 29 until October 1<sup>st</sup>, 2015. More details in <a href="http://geosmartasia.org/">http://geosmartasia.org/</a>

#### **North and Central America and the Caribbean**

The 2015 CyberGIS All Hands Meeting will take place in USGS Reston National Center Dallas Peck Auditorium, 12201 Sunrise Valley Drive, Reston, VA, on September 15-17, 2015. For more information visit <a href="http://cybergis.cigi.uiuc.edu/cyberGISwiki/doku.ph">http://cybergis.cigi.uiuc.edu/cyberGISwiki/doku.ph</a> p/ahm15/index

#### **September**

4. 9-11: <u>International Drone Conference and Exposition</u>

Las Vegas, Nevada, USA

 22-25: VII Congreso de Cartografía e Infrastructuras de Datos Espaciales La Habana, Cuba

27-30: <u>International Map Industry Association</u>
 <u>Americas Conference</u>
 Washington, DC, USA
 <u>October</u>

7. 5-7: Commercial UAV Expo

Las Vegas, Nevada, USA

- 8. 5-9: <u>International Society for Digital Earth 2015</u> Halifax, Nova Scotia, Canada
- 9. 12-16: <u>Conference on Spatial Information Theory</u> (<u>COSIT</u>)

Santa Fe, New Mexico, USA

10. 27-28: Open Government Partnership Global Summit Mexico

Mexico City, Mexico

11. 27-29: Polar Data Forum
Waterloo, Ontario, Canada











(continued from page 5)

## 4. Conferences

#### **November**

12. 10-12: <u>Latin America Geospatial Forum</u>

Mexico City, Mexico

13. 11-13: <u>Group on Earth Observations Plenary &</u>
Mexico City Ministerial Summit

Mexico City, Mexico

#### **December**

14. 9-11: <u>Spatial Information for Human Health</u>
Santa Barbara, California, USA

14-18: <u>American Geophysical Union Fall Meeting</u>
 San Francisco, California, USA

#### January 2016

16. 5-8: <u>Hawaii International Conference on System</u>
Sciences

Kauai, Hawaii, USA

#### February 2016

17. 22-25: <u>URISA GIS/CAMA Technologies Conference</u> Savannah, Georgia, USA

#### **Europe**

- 18. Earth Observation Open Science 2.0 workshop in Esrin (Frascati, Italy) on 12-14 Oct 2015. More details in <a href="http://www.eoscience20.org">http://www.eoscience20.org</a>
- 19. SATELLITE MASTERS CONFERENCE 20 22 October 2015 hosted at the German Federal Ministry of Transport and Digital Infrastructure (BMVI) in Berlin. The conference will feature an outstanding blend of sessions, solution soundbites, and roundtable discussions centred around leveraging satellitederived data and other space solutions for business and society in the following fields:
  - Digital Business
  - Big Data for Cloud Business
  - Smart Cities
  - Global Change & Sustainability
  - Small Satellites for the New Space Economy
  - Safety & Security
  - Satellite Services for European Infrastructures
     More information in <u>www.satellite-masters-conference.eu</u>.
- 20. The 14th International Conference of the Geological Society of Greece will take place on May 25-27, 2016, in Thessaloniki, northern Greece. The conference addresses all subjects of Earth Sciences. Among many others, GIS and geoinformatics, Remote Sensing, etc. More details in www.ege2016.gr.

21. "Geography at Work", Conference organized by EGEA-Alumni and EUROGEO in Baarlo, The Netherlands in October 2015. Apply/register at <a href="http://www.egea.eu/geography-at-work">http://www.egea.eu/geography-at-work</a>.

#### **South America**

- 22. 2as Jornadas de gvSIG Perú. "Ciencia, tecnología y desarrollo" <a href="http://jornadas-gvsig-peru.icip.edu.pe/">http://jornadas-gvsig-peru.icip.edu.pe/</a>. The 2nd gvSIG Conference in Peru will be held from September 25th to 26th at the Auditorium of the Municipality of Huancayo, under the slogan "Science, technology and development"
  - Los días 25 y 26 de septiembre de 2015 tendrán lugar las 2as Jornadas gvSIG Perú, que se celebrarán en el Auditorio de la Municipalidad de Huancayo, bajo el lema "Ciencia, tecnología y desarrollo"
- 23. 11th International gvSIG Conference: "It's possible. It's real": <a href="http://www.gvsig.com/en/events/gvsig-conference/11th-international-gvsig-conference">http://www.gvsig.com/en/events/gvsig-conference</a>

The 11th International gvSIG Conference, organized by the gvSIG Association, will be held from December 2nd to 4th 2015 at La Petxina Sports-Cultural Complex (Valencia - Spain), under the slogan "It's possible. It's real". Call for papers is now open. As of today communication proposals can be sent to the email address: conference-contact@gvsig.com; they will be evaluated by the scientific committee as to their inclusion in the conference program. There are two types of communication: paper or poster. Information regarding regulations on communication presentations can be found in the Communications section of the website. Abstracts will be accepted until September 25th.

11as Jornadas Internacionales gvSIG: "Es posible. Es http://www.gvsig.com/es/eventos/jornadasgvsig/11as-jornadas-gvsig. Del 2 al 4 de diciembre de 2015 tendrán lugar en el Complejo Deportivo-Cultural Pechina (Valencia - España), bajo el lema "Es posible. Es real", las 11as Jornadas Internacionales gvSIG, organizadas por la Asociación gvSIG. Ya está abierto el periodo para el envío de propuestas comunicaciones para las Jornadas. Desde hoy pueden enviarse las propuestas a la dirección de correo electrónico conference-contact@gvsig.com, y serán valoradas por el comité científico de cara a su inclusión en el programa de las Jornadas. Existen dos modalidades de comunicación: ponencia y póster. Toda la información sobre las normas para la presentación de comunicaciones puede consultarse en el apartado 'Comunicaciones' de la web. El periodo de recepción de resúmenes finalizará el próximo 25 de septiembre.











## 6. Courses

1. Temporal and spatial analysis of ecological data in an open source environment. October 26-29, 2015.

Organizer: GIS and Remote sensing unit, Fondazione Edmund Mach San Michele all'Adige, Trento, Italy. More details in <a href="http://gis.cri.fmach.it/">http://gis.cri.fmach.it/</a> and <a href="http://gis.cri.fmach.it/grass-gis-and-r-course/">http://gis.cri.fmach.it/grass-gis-and-r-course/</a>, <a href="http://gis.cri.fmach.it/uploads/leaflet\_grass\_course\_2">http://gis.cri.fmach.it/uploads/leaflet\_grass\_course\_2</a></a> <a href="http://gis.cri.fmach.it/uploads/leaflet\_grass\_course\_2">015.pdf</a>. Although the application deadline has passed, you can make a contact with the organizer for the educational content.

 gvSIG Batoví workshop for students for teaching Geography (at the National Teachers Institute <a href="http://ipa.cfe.edu.uy/">http://ipa.cfe.edu.uy/</a>; that means they are going to be teachers of Geography for all of Uruguay's High Schools -public and private-).

Taller sobre gvSIG Batoví para estudiantes de Profesorado de Geografía (del Insituto de Profesores Artigas <a href="http://ipa.cfe.edu.uy/">http://ipa.cfe.edu.uy/</a>; insituto público nacional de formación para profesores de todo el país) <a href="https://gvsigbatovi.wordpress.com/2015/07/31/taller-sobre-gvsig-batovi-para-estudiantes-de-profesorado-de-geografia-del-ipa-instituto-de-profesores-artigas-montevideo/">https://gvsigbatovi.wordpress.com/2015/07/31/taller-sobre-gvsig-batovi-para-estudiantes-de-profesorado-de-geografia-del-ipa-instituto-de-profesores-artigas-montevideo/</a>.

## 7. Training programs

MOOC usuarios: <a href="http://web.gvsig-training.com/">http://web.gvsig-training.com/</a>
 index.php/es/quienes-somos-2/noticias-2/145-the-free-mooc-cycle-gvsig-for-users

This free MOOC cycle "gvSIG for Users" (in English) is offered by gvSIG Association, in collaboration with GISMAP, and it is made up of three different Modules:

Module 1: "Introduction to GIS"

Module 2: "Layer Editing"

Module 3: "Raster Analysis" (starting in Autumn 2015)

MOOC scripting: <a href="http://web.gvsig-training.com/">http://web.gvsig-training.com/</a>
 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) about "Introducción a Scripting en gvSIG 2.1" 2nd edition (Spanish only)

Curso Abierto Masivo en línea (MOOC) de "Introducción a Scripting en gvSIG 2.1" 2a. edición (en español solamente)

## 8. Key Research Publications

For those interested in publishing go to <a href="http://www.opengeospatialdata.com/">http://www.opengeospatialdata.com/</a>. Open Geospatial Data, Software and Standards provides an advanced forum for the science and technology of open data, crowdsourced information, and sensor web through the publication of reviews and regular research papers.



Prof. Emmanuel Stefanakis (University of New Brunswick, Canada) <a href="http://www2.unb.ca/~e">http://www2.unb.ca/~e</a> <a href="https://www2.unb.ca/~e">stef/</a> has authored a new textbook entitled "Web Mapping and Geospatial Web Services: An Introduction". Details at

http://www2.unb.ca/gge/News/2015/2015.html# Stefanakis.

## 9. Funding opportunities

There is a call from British and Brazilian governments to support researchers that are willing to make joint research with Brazilian institutions at <a href="https://www.gov.uk/government/world-location-news/confap-and-uk-academies-launch-new-call-to-support-researchers">https://www.gov.uk/government/world-location-news/confap-and-uk-academies-launch-new-call-to-support-researchers</a> We encourage those interested in UK and Brazil universities in Geo4All to participate in this funding bid.













## 10. New free and open software

The August release of <u>LAStools</u> from <u>rapidlasso</u> <u>GmbH</u> now also contains a toolbox for the latest 15.1 version of <u>ERDAS IMAGINE</u> 2015 from <u>Hexagon</u> <u>Geospatial</u>. The two companies had <u>announced their cooperation</u> earlier this year after releasing the first version of a LiDAR processing toolbox based on <u>LAStools</u> for the 2014 version of <u>ERDAS IMAGINE</u>.

For the new 2015 version of the toolbox the installation procedure has been significantly simplified so that users of <a href="ERDAS IMAGINE">ERDAS IMAGINE</a> – just moments after downloading <a href="LAStools">LAStools</a> – can utilize 19 of the most popular LiDAR processing modules from <a href="rapidlasso GmbH">rapidlasso GmbH</a> either via the icons of a new toolbar or as operators within the IMAGINE Spatial Modeler framework.

The toolboxes for the 2014 and the 2015 version of <a href="ERDAS">ERDAS</a> IMAGINE are both distributed with the latest <a href="LAStools">LAStools</a> release. They instantly augment the existing image analysis tools of ERDAS IMAGINE with the widely-popular point processing capabilities of <a href="LAStools">LAStools</a>. The new tools empower users to validate, quality-check, clean, classify, thin, raster, contour, and compress LiDAR point clouds in LAS or LAZ formats as well as directly consume and further analyze the resulting raster or vector products with the rich functionality of <a href="ERDAS">ERDAS</a> IMAGINE.

See more at: <a href="https://sensorsandsystems.com/news/top-stories/corporate-news/36808-lastools-toolbox-now-also-for-erdas-imagine-2015.html#">https://sensorsandsystems.com/news/top-stories/corporate-news/36808-lastools-toolbox-now-also-for-erdas-imagine-2015.html#</a>
sthash.qSspqkmL.dpuf

## 11. Free books

 Five new entries of Hungarian tutorials for QGIS, PostGIS, GRASS, GDAL/OGR, OpenLayers posted by Zoltan Siki on our Educational Content Metadata system (<a href="http://www.osgeo.org/educational content">http://www.osgeo.org/educational content</a> and <a href="http://www.osgeo.org/education">http://www.osgeo.org/education</a>). These tutorials were made by the Geo4All lab at the Department of Geodesy and Surveying, Budapest University of Technology and Economics. 2. Geospatial/SDI Regional Newsletter for August 2015 available for download

The SDI Regional Newsletter published by the Global Spatial Data Infrastructure Association (GSDI) provides highlights from around the world on recent data policy and sharing developments, crowdsourcing and data visualization applications, and research on business models, user interface design, cyberinfrastructure, and RS/GIS impacts.

The SDI Regional Newsletter for August 2015 now is available for download at: <a href="http://memberservices.gsdi.org/files/?artifact\_id=1694">http://memberservices.gsdi.org/files/?artifact\_id=1694</a> or online as e-zine at: <a href="http://tinyurl.com/p6p4d8x">http://tinyurl.com/p6p4d8x</a>.

The monthly newsletters also can be downloaded from the archive at: http://www.gsdi.org/newsletters.

3. History of map projections (in Spanish)

The History of Cartography is an aspect generally overlooked in histories of Civilization; inside it is still the most ignored issue of map projections which is essential for the construction of maps but usually go unnoticed by historians and geographers who rarely mention it. In this book the story of an aspect of Cartography as essential as that is reviewed; it summarizes the main characteristics of the most common projections and a synthetic literature on the subject is provided. All with a didactic sense and the amenity of a teacher from the category of Jose Martin Lopez.

Historia de las proyecciones cartográficas: <a href="http://www.ign.es/ign/resources/acercaDe/libDigPub/">http://www.ign.es/ign/resources/acercaDe/libDigPub/</a>
HistoriaProyeccionesCartograficas.zip

La Historia de la Cartografía es un aspecto generalmente olvidado en las Historias de la Civilización; dentro de ella está más ignorada todavía la cuestión de las proyecciones cartográficas, algo fundamental para la construcción de mapas, pero que suele pasar desapercibido para los historiadores y los geógrafos, que rara vez lo mencionan. En este libro se repasa la historia de un aspecto de la Cartografía tan esencial como ese, se resumen las principales características de las proyecciones más habituales y se proporciona una bibliografía sintética sobre el tema. Todo ello con el sentido didáctico y la amenidad de un profesor de la categoría de José Martín López.











## 12. Articles

# Formal Inauguration of Geospatial Research and Education Lab (GREL), the first and only ICA-OSGEO-Lab in Pakistan

By Rizwan Bulbul, Co-Editor

It is my pleasure to inform you that the first and only ICA-OSGEO-ISPRS lab called Geospatial Research and Education Laboratory (GREL) has been established at Institute of Space Technology (IST), Islamabad, Pakistan. The laboratory was formally inaugurated by the President of Pakistan Mr. Mamnoon Hussain during the Annual Commencement of IST on August 20, 2015 in Islamabad, Pakistan.

GREL is being launched with the following objectives:

- Spreading geospatial awareness across Pakistan by providing education from grass root to higher levels. In this regard, we are planning to develop national curriculum for geospatial education at schools and colleges. We aim to provide free geospatial education to school and college students in remote areas of Pakistan using our Moodle based eLearning platform.
- Being the first ICA-OSGEO-ISPRS laboratory in Pakistan, we have the responsibility of proliferation of the "Geo for All" vision. We will mentor and support the establishment of more laboratories in Pakistan that support this global initiative, such that a national network is built to support geospatial education and research across Pakistan.
- Develop and maintain a high-quality and highimpact research portfolio, tackling national, regional, and global level research problems in the domains of geographic information science, remote sensing, and associated fields.
- Establish international linkages with academia, industry, government, and non-government organizations.
- Offer short and long term courses for capacity building in government and non-government organizations focusing on applications of FOSS4G for their respective domains.

The members of GREL constitute a strong and active research group, with faculty in the areas of both core and applied geographic information science and remote sensing. The faculty at GREL has won numerous competitive research projects, from both national (such as HEC, SUPARCO) and international (such as NASA, ICIMOD, IFS) funding agencies. Research problems being tackled include studying Pakistan's forest biomass content using satellite images, developing decision systems watershed support for conservation, monitoring glaciers using stereo satellite imagery, establishing ground measurement of winter fog, 3D city modeling for smart cities, satellite-based meteorology, observing and simulating ionospheric disturbances, and studying oceanographic phenomena in the Arabian Sea.

The Ministry of Planning, Development and Reforms (MoP), Pakistan has recently taken the much awaited initiative of developing National Spatial Data Infrastructure (NSDI) for Pakistan. GREL is actively contributing towards the "national GIS" vision of MoP by heading the working group on NSDI technology, standards, education, and research.

We invite you to visit our website and learn more about us.



Figure 1: Dr. Rizwan Bulbul (Director and Founder GREL) is briefing Honorable President of Pakistan Mr. Mamnoon Hussain regarding ICA-OSGEO-ISPRS education initiative mission and GREL vision and objectives.











## 12. Articles (cont.)

#### **Abbreviations**

by Nikos Lambrinos, Chief Editor

More abbreviations are added thanks to those sent by Siki Zoltan from Hungary.

For those who would like to support this effort, please send any abbreviations to the Chief Editor (<a href="mailto:labrinos@eled.auth.gr">labrinos@eled.auth.gr</a>).

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 COGO: Coordinate geometry CRS: Coordinate Reference System EOS: Earth Observation Science

DEM: Digital Elevation Model DXF: Drawing Interchange File

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

GNSS: Global Navigational Satellite System

GPS: Global Positioning System GPX: GPS Exchange Format

HOT: Humanitarian OpenStreetMap Team ICA: International Cartographic Association

INSPIRE: Infrastructure for Spatial Information in Europe ISPRS: International Society for Photogrammetry and

**Remote Sensing** 

KML: Keyhole Markup Language LiDARL: Light Detection and Ranging

LOD: Level Of Detail

MoU: Memorandum of Understanding

NAD: North American Datum

NGA: National Geospatial Intelligence Agency

OGC: Open Geospatial Consortium

OSGeo: Open Source Geospatial Foundation

OSM: OpenStreetMap

RCMRD: Regional Centre for Mapping of Resources for

Development

SDI: Spatial Data Infrastructure SQL: Structured Query Language TIN: Triangulated Irregular Network UAV: Unmanned Aerial Vehicle

USGIF: United States Geospatial Intelligence Foundation

WCS: Web Coverage Service WFS: Web Feature Service WGS: World Geodetic System WMS: Web Map Service WPS: Web Processing Service

## 15. Awards

I would like to apologize to the winners and correct the mistake that was done in the previous issue of the Newsletter (vol. 1, no. 1) concerning the Individual Educator of the Year 2015 Award and the GeoForAll Educator Team Award of the Year 2015. In the previous issue the teams announced were the NASA Worldwind Europa Challenge winners.

So, please accept my apologies and read the correct ones:

1. The GeoForAll Educator Award Selection Committee, has announced the Individual and Team Awards for the "GeoForAll - Global Educator of the Year Award 2015" <a href="http://www.osgeo.org/node/1506">http://www.osgeo.org/node/1506</a> at the FOSS4G 2015-Europe "Open Innovation for Europe" conference at Como, Italy.

GeoForAll would like to thank The Open Source Geospatial Foundation (OSGeo), The International Society for Photogrammetry and Remote Sensing (ISPRS), and The International Cartographic Association (ICA) whose contributions made possible the conferment of the awards to:

**Sterling Quinn**, Pennsylvania State University, Pennsylvania, USA

For his course on "Open Web Mapping"

The GeoForAll Educator of the Year Team Award goes to...











Kurt Menke - Bird's Eye View, Nate Jennings Urbandale Spatial, Jon Van Hoesen Green Mtn College, Rick Smith Texas A&M, and Phil Davis, Delmar College (all in USA) For their GeoAcademy development efforts.

2. Though the ICA-OSGeo-ISPRS Awards are for the Student teams, the Europa Challenge is also open for the Professionals/SMEs/Industry etc. The list of the winners from the Professional track should be published in the Vol. 1, No.1 issue (August 2015) but it was left out by mistake. I apologize to the winners.

#### **Professional Track Winners:**

- 1. WMTweb <a href="https://bitbucket.org/emxsys/wildfire-management-tool-web/wiki/Home">https://bitbucket.org/emxsys/wildfire-management-tool-web/wiki/Home</a>
- 2. wwwOSM http://www.trilogis.it/wwwosm/
- 3. gvSIG <a href="https://redmine.gvsig.net/redmine/projects/gvsig-3d/wiki">https://redmine.gvsig.net/redmine/projects/gvsig-3d/wiki</a>
- On behalf of Geo for All, Dr. David Fairbairn (University of Newcastle) has been awarded the ICA Honorary Fellowship at ICC 2015 in Rio this week. Congrats David.

Details at <a href="http://icaci.org/ica-awards-ceremony-icc2015rio/">http://icaci.org/ica-awards-ceremony-icc2015rio/</a>

## 16. Web sites

As part of a project with the Department for Communities and Local Government (DCLG) OS has created two new datasets of county boundary information – of the current ceremonial and the historic county boundaries. The new datasets have been released through the popular OS OpenData portal – <a href="https://www.os.uk/blsupport">www.os.uk/blsupport</a>. OS has added the current ceremonial county boundaries and the historic counties. Both datasets can be freely downloaded, as either Shape or Tab files.

## 17. Ideas

For those interested in promoting GeoForAll in any kind of event please consider downloading the GeoForAll slides from <a href="http://www.geoforall.org/resources/downloads/GeoforAllslides.ppt">http://www.geoforall.org/resources/downloads/GeoforAllslides.ppt</a>

#### An invitation sent by Suchith Anand,

We would like to invite articles from Industry, Universities/Education, Startups, NGOs, Governments on examples of how Open Geospatial Software and Open Data are empowering them and creating many new opportunities for "Geo for All" <a href="http://www.geoforall.org/newsletters">http://www.geoforall.org/newsletters</a>.

Even proprietary GIS vendors and their business partners make huge use of and rely heavily on open source for their business <a href="http://www.gogeomatics.ca/magazine/osgeo-presents-geo-for-all-initiative-may-30-ottawa-social.htm">http://www.gogeomatics.ca/magazine/osgeo-presents-geo-for-all-initiative-may-30-ottawa-social.htm</a>. That is true empowerment and we want to get more examples from the wider community for our newsletter

- \* Examples of Open Source Geospatial and Open Data empowering and creating new opportunities for Geospatial Industry
- \* Examples of Open Source Geospatial and Open Data empowering and creating new opportunities for Startups
- \* Examples of Open Source Geospatial and Open Data empowering and creating new opportunities for Universities/Education
- \* Examples of Open Source Geospatial and Open Data empowering and creating new opportunities for Government organizations
- \* Examples of Open Source Geospatial and Open Data empowering and creating new opportunities for NGOs We are especially interested to hear from

We are especially interested to hear from government organizations, regional/local authorities on how Open source GIS software helped the local authorities and various government departments in reducing huge annual license fee costs for proprietary software and benefit the taxpayers as a whole from cost efficiencies, reduction of cost of lock-in to suppliers and products. Now imagine the costs for not just one year but in the future 5, 10, 25 years. The savings will be billions of dollars of taxpayers money globally which can be invested by governments in education, healthcare, etc.

As more and more government organizations; national, regional and local authorities rapidly move to QGIS and other Open source solutions for local











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level which is in fact the BIGGEST OPPORTUNITY for SMEs and startups to fill in. There should be a strong ecosystem (universities, local government, SMEs, etc.) to enable the creation of conditions for many new opportunities to be created in Open Geospatial ecosystem, so that there will be a lot of job creation as well as innovation opportunities. So examples from Startups in OSGeo ecosystem are very welcome. There is already a great list of service providers of OSGeo ecosystem, and this is just the start.

So please do send examples of how Open Source Geospatial and Open Data is empowering and creating new opportunities from Geospatial Industry, Startups, Education, NGOs, Government organizations to our chief editor of "Geo for All" newsletter -Dr. Nikos Lambrinos, Dept. of Primary Education Aristotle University of Thessaloniki, Greece (email: labrinos@eled.auth.gr).

#### A message from Suchith Anand

On behalf of "Geo for All," we are happy to inform the renewal of the Memorandum of Understanding between Source Geospatial Foundation and the Open the International Cartographic Association (ICA) by Professor Georg Gartner (President ICA) and Jeff McKenna (President OSGeo) on 16 July 2015 at FOSS4G Europe, in Como, Italy. Details at http://wiki.osgeo.org/wiki/MOU ICA

This builds upon the ICA-OSGeo MoU of Sep 2011 and reflects our expansion plans for the future. We thank the ICA Executive and the OSGeo Board for supporting the MoU and Helena Mitasova for her efforts to get this MoU updated and renewed. We also thank Arnulf Christl (former OSGeo President) who took the initiative of ICA-OSGeo collaborations many years back. This is an excellent example of the power of bringing together communities on a shared mission - "Making geospatial education and opportunities accessible to all."

This MoU renewal will be formally announced by Georg Gartner (President ICA) [1] at the 27th *International Cartographic Conference* in *Rio* de Janeiro, Brazil, next week, and by Jeff McKenna (President OSGeo) at FOSS4G 2015 in Seoul. This will further develop the GeoForAll initiative, through expanding partnerships.

We welcome Governments, Industry, SMEs, NGOs, etc. who support Geo4All's education mission and criteria [2] to join us as "Partners" and be part of a global network of Open Geospatial Science Research and Education 'Labs' and 'Partners' to expand more collaborations for the future [3]. We will work to bring together all key players (Government organisations, Industry, SMEs, NGOs) on the common mission of education and opportunities for all.

We started from nothing, and it is 100 percent the dedication and efforts of all our colleagues globally which helped us. We are grateful to all our colleagues globally for their help and efforts which enabled us to build this initiative.

We look forward to working and building collaborations with all interested on this education mission. Access to quality education and opportunities is key for getting rid of extreme poverty and enable broadly shared prosperity for all.

#### Some information and links to Newsletters

By Sergio Acosta Y Lara, co-editor Geospatial/SDI Regional Newsletter

The SDI Regional Newsletter published by the Global Spatial Data Infrastructure Association (GSDI) provides highlights from around the world on recent data policy and sharing developments; crowdsourcing and data visualization applications; research on business models, user interface design, cyberinfrastructure; and RS/GIS impacts. The SDI Regional Newsletter for August 2015 is now available for download at: http://memberservices.gsdi.org/files/?artifact\_id=1694 or online as e-zine at: http://tinyurl.com/p6p4d8x The monthly newsletters can also be downloaded from the archive at: http://www.gsdi.org/newsletters

The GeoSUR Portal provides an entry point to spatial data published by Latin American and Caribbean agencies. The GeoSUR Program is led by CAF, the Latin American Development Bank, and PAIGH, the Pan American Institute of Geography and History. The Portal was developed with the technical support of the U.S. Geological Survey (USGS). You can access the GeoSUR bulletin archive at <a href="http://www.geosur.info/geosur/index.php/en/geosurslibrary">http://www.geosur.info/geosur/index.php/en/geosurslibrary</a> or at <a href="http://www.ipgh.org/GeoSUR/boletin.html">http://www.ipgh.org/GeoSUR/boletin.html</a>.

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El Programa GeoSUR opera y mantiene la red de información geográfica de América Latina y el Caribe. El Programa GeoSUR es coordinado por la CAF - banco de desarrollo de América Latina - y el IPGH - Instituto Panamericano de Geografía e Historia -. Se puede acceder al archivo de los boletines de GeoSUR en <a href="http://www.geosur.info/geosur/index.php/es/biblioteca-geosur">http://www.geosur.info/geosur/index.php/es/biblioteca-geosur</a> o en <a href="http://www.ipgh.org/GeoSUR/boletin.html">http://www.ipgh.org/GeoSUR/boletin.html</a>

Newsletter IDE Iberoamérica Infraestructuras de Datos Espaciales: http://redgeomatica.rediris.es/newsletter/

#### An idea from Jeff McKenna

"GeoForAll Sprint" event. The goal of the event would be to get the OSGeo, and ICA, and ISPRS communities together over a few days to work together on developing Open curriculum materials.

Those who are familiar with code sprints know them as getting developers from around the world to work together, usually in a big room with good wifi, and working on OSGeo software projects.

Now, the GeoForAll Sprint would be a little different, as code may not be written for the OSGeo projects, but materials would be developed that could be used by the project communities and educators.

If you choose to do this, there are already steps available if you want to request for funding to the OSGeo Board for a sprint (see the steps at <a href="http://wiki.osgeo.org/wiki/Code Sprint Guidelines">http://wiki.osgeo.org/wiki/Code Sprint Guidelines</a>.

## 1. Activities (cont.)

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They were really excited to be able to use their phones to do this work!

He has also developed a public health mapping course with six labs, built in the same style as the GeoAcademy courses. It essentially takes a student through the workflow. The labs are in beta at the moment but will be freely available once completed.

To date they've trained public health professionals in Charleston, SC; Seattle, WA; Honolulu, HI; and Tuskeegee, MI. It has been very successful and a lot of fun. This work has been presented at several FOSS4G meetings in past years.

## 2. Lab of the Month (cont.)

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The last in the series features the opinions of several professionals working in government and private industry explaining the reasons why FOSS4G makes sense for their work. For the Fall of 2015 they plan to continue with the webinar series, expand their collection of tutorials and participate in local GIS science and technology events, such as GIS in the Rockies <a href="http://www.gisintherockies.org/2015/">http://www.gisintherockies.org/2015/</a> where the lab is coordinating a FOSS4G track. Several students will be giving presentations in the track at the event.

Colorado is a hot spot for geospatial research, education, and industry; the lab has greatly benefited from the participation of professionals working in private industry and government agencies using and developing FOSS4G. On the lab website you can find a growing collection of FOSS4G tutorials.

FOSS4G Lab at UCD also has done practical field courses in Costa Rica (see image) to give students a wider global knowledge and expertise.



In less than one year after establishment, the UCD FOSS4G Lab has developed as a hub for fostering interactions and cross disciplinary collaborations between UCD students and faculty and to facilitate their engagement with public and private organizations and communities in Colorado, as well as with other universities in the USA and around the world.

We thank Rafael and all colleagues and students at UCD FOSS4G lab for their contributions to the Geo4All initiative and look forward to working and building more collaborations with all interested on this education mission.