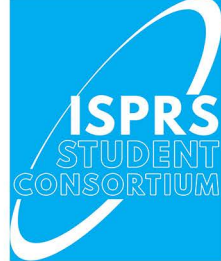


News Letter



Issue No. 4, Volume 10 - August 2017

CHARMED AT NAGOYA:
2017 INTERNATIONAL SYMPOSIUM ON
REMOTE SENSING

**Geomatics Engineering Exposition
at the University of Calgary**

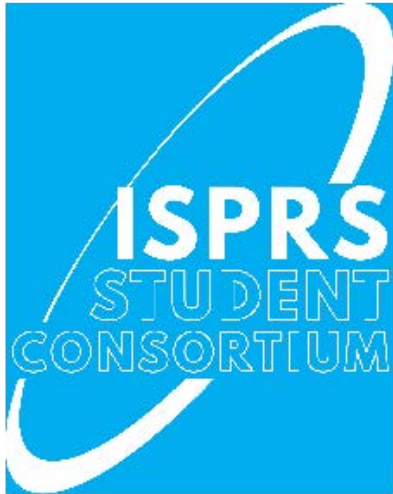
Tropical Forestry Research in the GMS:
Conservation Challenges Faced
by a Relatively Understudied Region

THE ISPRS STUDENT CONSORTIUM AND
WORKING GROUP V/5 SUMMER SCHOOLS 2017

One Giant Leap Towards Land Cover Monitoring For All: An Interview with Luca Congedo



ISPRS SC NewsLetter



Editor-in-Chief:
Angelica MONZON

Technical Editor:
Angelica MONZON

Proof Readers:
Daphne Joyce MAZA

Contributors:

Sheryl Rose REYES
Jacky C.K. CHOW
Charles JUUUKO
Min-Lung CHENG
Jhyun - Ping JHAN
Athanasios MOYSIADIS
Minerva SINGH

Design Team:

Vincent AZUCENA
Amihan MANUEL
Sandra PULMANO

SC Newsletter (ISSN Y506-5879) is published
by ISPRS Student Consortium.



This version of **SC Newsletter** is licensed
under a Creative Commons Licence.

For more information about the licence visit:
<http://creativecommons.org/licenses/by-nd/3.0/>

To join our members area visit
www.isprs-sc.org

Frontpage designed by *Vincent Azucena*



Would you like to join SC Newsletter team? Do you want to make a difference? Want to learn new skills?

SC Newsletter is at a stage where getting broader and better demands more people to be involved in the process of it's formation. That's why SC Newsletter team is looking for the following volunteers:

- More **people who would be willing to prepare articles** for existing or new rubrics,
- Designers of Newsletter

If you can help us with any of the above, please let us know!

info@isprs-studentconsortium.org

And also...

If you **would like to publish your research work** in the SC Newsletter send us your abstract on email written above. We will soon contact you for further information.

Dear ISPRS SC Newsletter readers,

Greetings with peace!

The increasing relevance of free and open source software to answer the demand for accessible tools that can generate timely knowledge products is obvious across various fields. This is also the case for the fields of Geomatics and Remote Sensing. In the recent years, open source platforms and algorithms have been rapidly progressing with great diligence from an ever-growing army of researchers and program developers. In this issue, we bring in some behind-the-scene stories of the development of an open source program, from the developer of the Semi-Automatic Classification Plug-in for Quantum GIS. We also look at the different types of open source software and identify what you may need for your research or project.

Also in this issue, we bring you some highlights from the International Symposium on Remote Sensing 2017 in Nagoya and the Geomatics Engineering Exposition 2017 in Canada; as well as, a few other featured stories on the applications of Geospatial technologies for conservation and water management.

Lastly, don't forget to check out the upcoming ISPRS Student Consortium and Working Group V/5 Summer Schools 2017. The next one could be in your region! Don't miss this opportunity to sign-up and apply! We look forward to seeing you there. 😊

Angelica Kristina Monzon
Newsletter Editor-in-chief
2016- present

TABLE OF CONTENTS

2 SPOTLIGHTS

- 2 **Charmed at Nagoya:
A report from the 2017 International
Symposium on Remote Sensing (ISRS)**
- 3 **Geomatics Engineering Exposition at the
University of Calgary**
- 4 **Tropical Forestry Research in the Greater
Mekong Subregion: Conservation Chal-
lenges Faced by a Relatively Understudied
Region**
- 6 **One Giant Leap Towards Land Cover
Monitoring For All**
- 8 **Water Observation and Information
System**
- 8 **Types of “Free/Open Source”
Software for Geospatial Applications**

10 **In The Horizon: Future ISPRS related events**

- 10 **The ISPRS Student Consortium
and Working Group V/5
Summer Schools 2017**

- 11 **Opp SCANNER
Opportunities
Masters Scholarship Opportunities**

Engage with our
global network of
experts and
be empowered



Join the ISPRS Student
Consortium today!

Follow us on:

 [groups/isprssc](https://www.facebook.com/groups/isprssc)

 [@ISPRS_SC](https://twitter.com/ISPRS_SC)

 [@ISPRSSC](https://www.instagram.com/ISPRSSC)

Charmed at Nagoya: A report from the 2017 International Symposium on Remote Sensing (ISRS)

Written by:
Min-Lung Cheng
Tokyo Institute of Technology,
Japan

Photos by:
Jyun-Ping Jhan
National Cheng Kung University,
Taiwan

The 2017 International Symposium on Remote Sensing (ISRS) was held on 17-19 May at Nagoya University, Japan. Nagoya is one of the most ancient cities located in central Japan, famous for its manufacturing industry. With several famous tourist spots, such as Tokugawa Art Museum, Atsuta Shrine, and Nagoya Castle, this city attracts thousands of visitors every year to enjoy the ancient yet modern atmosphere. With the chance of attending ISRS 2017, it was a good time to look around this charming city.

Young students and scientists from Japan, Taiwan, Korea, and international students studying in these countries joined this event to present and share their researches with each other. The topics were mainly orientated around Geoscience technologies and diversified applications for improving life issues. A number of interesting researches and presentations were featured/presented during the three-day symposium, and attendees also received additional or new knowl-



edge. Several excellent papers were also awarded to acknowledge the students' academic performances.

In addition to academic discussions, it was also a great opportunity to connect with young students from different backgrounds and cultures. The young scholars' night was held for students to make new friends and share life experiences. One valuable purpose of this occasion was to practice communication skills within a relaxed and happy atmosphere. There was no worry about language skills during the conversations because to express is what was most important. It is sincerely to invite students, scientists, and scholars to join and enjoy this conference in the following years.

The 2018 ISRS will be held in Pyeongchang, South Korea where, it was announced, there are beautiful scenery and traditional Korean heritages. Everyone is excited about attending ISRS next year and visiting Pyeongchang, and is looking forward to having nice talks with young students and scholars next time. Don't hesitate and join us.

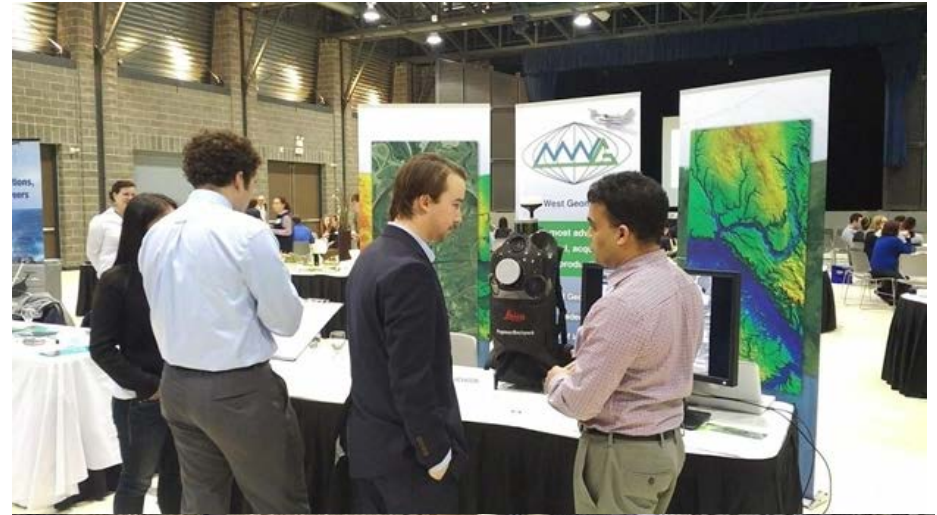


Geomatics Engineering Exposition at the University of Calgary

Jacky C.K. Chow
Aston University

January 19th marked the annual Geomatics Engineering Exposition at the University of Calgary, Canada. Companies such as Trimble, Applanix, Novatel, and Leica Geosystems appeared on campus to meet with undergraduate as well as graduate students. Various technologies were on display, including mobile mapping backpacks, drones, VR goggles, 3D cameras, and many more. Not only were first year students coming to learn more about the diverse field of geomatics, senior students were also being recruited. This full day event sparked many insightful discussions among the participants and featured eye-opening presentations from various companies. The exposition followed the tradition by ending with a reception at the campus bar, where students and industries got to mingle and socialize.

The lead organizer of the Geomatics Engineering Student Society, Madison Shevchuk, has the following impression about the exposition this year: "I am very happy with how the exposition turned out this year. The number of exhibitors from industry was lower than we have had in past years, but it was still a great showing. The presentations throughout the day were excellent, and I feel like myself, as well as the other students in the faculty really enjoyed the event. I really enjoyed seeing my final event plan come together, and I hope this event continues to be more successful as the years go on."

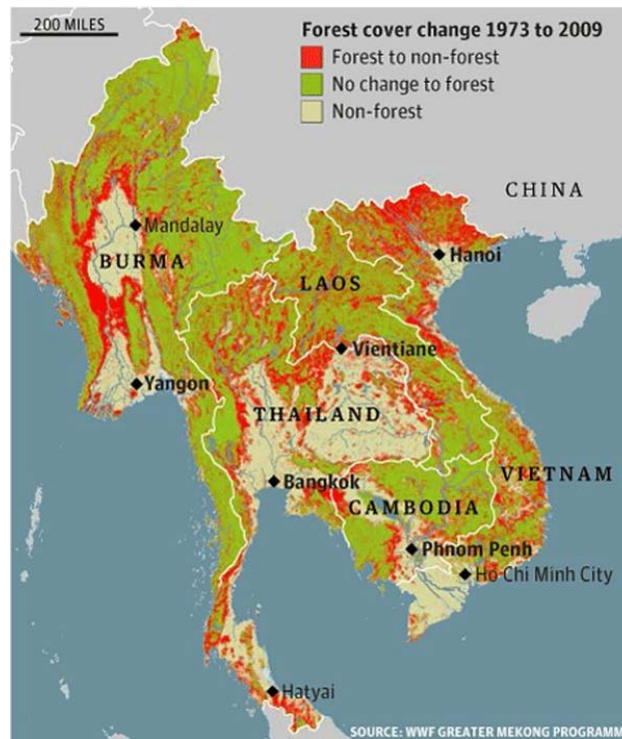


TROPICAL FORESTRY RESEARCH IN THE GREATER MEKONG SUBREGION (GMS): CONSERVATION CHALLENGES FACED BY A RELATIVELY UNDERSTUDIED REGION

Minerva Singh
Cambridge University

Politically, the Greater Mekong sub-region (GMS) comprises of Myanmar, Thailand, Cambodia, Vietnam, and Laos PDR. More than 50% of this area is still covered with forests which are home to many iconic and endangered species; notably the Indochinese tiger and Hainan langur, among others. The region has been categorized as a biodiversity hotspot according to the Biodiversity Hotspot classification devised by Myers et al. (2000). Over the past few decades, several species including large mammals such as “saola” have been discovered or re-discovered in the GMS. Other notable species include the Annamite striped rabbit and gaur, among others. The region also has a high level of endemism. For several decades during the 20th century, the region faced severe turbulence in the form of socio-political instability, decolonization, the Vietnam War, and guerrilla warfare undertaken from jungle camps. This instability combined with prioritizing economic development over conservation (an attitude which may well have stemmed from colonial forestry management practices) has greatly shaped and influenced the forest cover dynamics of the GMS.

since the 1970s, the entire region has lost about 30% of its total forest cover (Cambodia: 22%, Laos and Myanmar: 24%, and Thailand and Vietnam: 43%), as shown in the image above. Additionally, a substantial increase in forest fragmentation has been noted as well. Further, in a “business as usual” scenario (where the region follows the same development trajectory followed from 2002–09), the report has predicted a further 34% loss in forest cover and the reduction of core forest area down to 14%.



Forest cover change in the GMS region since 1973.

A 2013 report by the World Wide Fund (WWF) compiled in great detail the forest cover change in the GMS from 1973–2014 and examined the factors influencing forest loss in the region. According to the report,

As a result of all these changes, many tropical forests in the GMS now exist as degraded forest fragments, usually embedded in agricultural or monoculture landscapes.

SPOTLIGHTS

This can potentially have a negative effect on biodiversity. My research in Laos focused on identifying the factors that influence avian species persistence (of IUCN listed endangered birds) both within forest patches of different sizes embedded within a rice paddy ecosystem, and at landscape scale. The research involved collecting the geolocations of avian species in question and using them in conjunction with remote sensing proxies of forest structure (such as LiDAR derived canopy structure parameters) in the MaxEnt software to identify both suitable habitat for species and the variables influencing these.

It was discovered at a landscape scale that distance from forest patches (including small and degraded forest patches) was the most important driver of habitat suitability for avian species in the study area. When the forest patches were examined at the local scale, it was discovered that both forest structure variables (such as canopy height) and vegetation greenness contributed to habitat suitability, along with factors like patch size. The study recommends the retention of forest patches, including highly degraded isolated forest patches, as a way of retaining biodiversity within agriculture dominated tropical forest ecosystems.

However, some fundamental issues persist. Reconciling biodiversity conservation with economic development is an extremely complex,



Degraded tropical forests in Laos



The writer, Ms. Minerva Singh



Avian species data collection in Laos

and often contradictory, goal. At a fundamental level, it would require the combined efforts of academics, conservation managers, and policymakers to re-define the basic concepts of what really constitutes development and how development can take place without decimation of nature. Today, the GMS stands at the proverbial cross-roads. As road construction threatens to invade the last of Asia's wilderness spots, the question remains if the forest resources of the GMS can withstand the existing rate and nature of "development". Can "development" which comes at the cost of the destruction of valuable biodiversity and depriving the local communities of their agency really be called "development"?

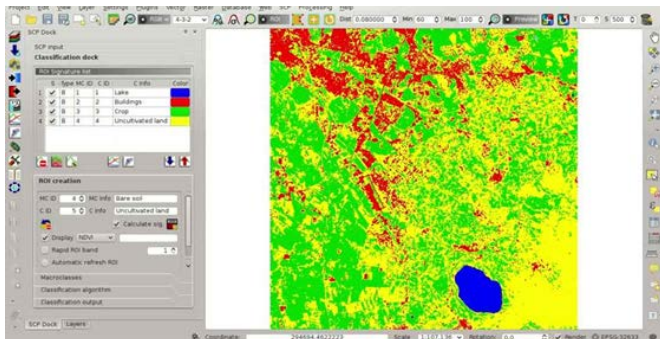
One Giant Leap Towards Land Cover Monitoring For All

Luca Congedo is the author of the renowned blog “From GIS to Remote Sensing” (<https://fromgistsors.blogspot.com>) that puts out videos and tutorials to help young researchers looking for an alternative tool to perform environmental monitoring. He is also the driving force behind the development of the Semi-Automatic Classification Plug-in for Quantum GIS. A tool to revolutionize how we conduct supervised image classification in a platform that is available for all. Let us zoom in at his valuable contribution (and outstanding person himself) through his interview.

1. Were you always into using and developing open source software? Can you tell us a little bit about the Semi-Automatic Classification Plug-in? What was your motivation that led to its development?

I have always been fascinated by open source software, although the Semi-Automatic Classification Plugin (SCP) for QGIS was my first experience as developer. During my studies, as environmental engineer I have been using Linux as main operating system, and programs such as GRASS GIS and QGIS for environmental analysis. Nevertheless, I familiarized with commercial software during my master thesis, especially for the processing of remote sensing images.

The SCP is a tool that allows for the download and processing of remote sensing images, aiming at easing the process of land cover classification. The first version was developed in 2012 during my internship in the project ACC DAR (Adapting to Climate Change in Coastal Dar es Salaam) as a free tool for allowing land cover monitoring by local administrations. The main purpose was to replace commercial software (which is quite expensive for local administrations) with a free program that could be used also by people not specialized in remote sensing.



Interface of the SCP in QGIS. Image from <http://fromgistsors.blogspot.com>

Today we can exploit the availability of free images such as Landsat and Sentinel-2. My hope is that using my plugin, even local administrations or young students can easily monitor land cover change, and

finally foster environmental protection and planning. During the years I have continued developing the SCP to improve the capabilities thereof, and to provide an affordable suite of tools for preprocessing and postprocessing raster data.

2. What made you decide to start the blog “From GIS to Remote Sensing”? How do you feel about the response that you are getting from your blog?

As open source programs are improving the way we work, likewise, sharing knowledge is a fundamental key to improving our society. I try to share my experiences in the GIS and remote sensing fields through my blog, which I started in 2013.



At first, I published tutorials about the SCP and news about the project. Quite soon, I received several positive feedbacks, and this was a motivation to continue my work on the SCP. Now that SCP reached version 5, I am happy that many institutions and universities teach SCP in their courses, and students use the SCP for their thesis.

Many users write tutorials about SCP in several languages other than English, which I gladly publish in my blog and social media. Also, the SCP documentation is being translated into several languages. I really love this spirit of cooperation, and I take the opportunity to thank the SCP community and all the people who contributed.

3. Which of your projects (past or present) do you think was the most successful? What do you think constitutes its success?

I participated in several projects that I consider successful. From a personal point of view, the ACC DAR project was a particular success, because my objective was focused on remote sensing. I had the opportunity to improve my skills in this field, and extended my knowledge about the relationship between land cover and sustainable development.

Now, I collaborate on a project about the monitoring of land take in Italy through remote sensing. Land take (i.e. the replacement of natural and agricultural soil with impervious surfaces) is a big issue in my Country; I think this project is a success because of the innovation and contribution it can provide to national policies aimed at protecting the environment.

SPOTLIGHTS

4. Apart from open source development, your publications include sustainable development, economic planning, and urbanism. How do you think open source technology development integrates into these fields of study?

In my publications, urban planning and other issues are all related to sustainable development, which I consider as the only possible solution to environmental change. The causes of environmental change, both locally and globally, are intertwined, thus we need the cooperation of different competences to understand these issues.

Open source development can foster the study of these issues, allowing more people to access the required data and tools; expanding the number of users with different expertise can eventually contribute to software development leading to unexpected and successful results.

At the local level, people can benefit from the tools included in open source programs, analyze data, and combine them to their local knowledge. In this context, open source technology is becoming an effective tool for science to provide better responses to environmental issues.

5. From the experiences you had in this field of Remote Sensing, what habits do you think would be worthwhile for us (students and young professionals) to develop? What do you do on your free time?

The main habit I would recommend is reading papers and news very often. Remote sensing is evolving at a very fast pace, and it is useful to be always up to date with recent innovations.

I would also suggest being involved in field surveys that can help the interpretation of remote sensing images and understand their relationship with actual land cover.

A good habit related to open source programs is to test and compare them. There are several good alternatives in the remote sensing field, thus learning how to use them can improve analysis skills and research results.

About my free time, I enjoy walking in the countryside whenever I can. Also, music is one of my passions and I like to play the guitar.

6. What do you think will be the best part of the next project you're doing?

I am going to conclude my PhD in Landscape and Environment (Sapienza University) next year. In this context, I am going to release the new SCP version 6, with several new tools. The SCP development is always a good excuse for me to study new algorithms and have a practical approach trying to implement these. This will be probably the best part of my research, and I also hope it will be the beginning of other researches.



A portrait of Mr. Luca Congedo

7. Lastly, what is your advice to the ISPRS-SC members looking into open source software development?

As environmental engineer, I can advise to be curious and determined in achieving your objectives. Software development can be difficult at the beginning; thus I suggest starting with small projects, and gradually increase their complexity.

I can recommend the language Python, which is also very useful for creating scripts that can save time during our daily work. There are several sources on the internet that can freely provide guides for improving your skills in open source development, from beginner to advanced levels. In fact, there are communities specializing in helping to solve code issues.

I can assure that contributing to open source projects is both a personal and professional satisfaction.

*Questions prepared by:
Angelica Krsitine Monzon
ISPRS-SC Newsletter Editor*

Water Observation and Information System (WOIS)

Charles Jjuuko
Egerton University

The WOIS was developed under the TIGER-NET project of the European Space Agency (ESA) by a consortium of Earth Observation (EO) and water management experts including companies, research laboratories and Universities that have experience in Earth Observation satellite technology in water resources management in Africa. It was developed to enable the use of the available EO data for monitoring, assessing, and inventorying water resources in a cost-effective way. It is a tool kit that is entirely based on open source software. QGIS is the central integrating platform due to its clear and accessible GUI and strong development community. This is integrated with GRASS GIS (a large tool box of raster and vector analysis algorithms), BEAM and S-1 tool box (processing of visible, thermal and radar ESA data products including sentinel-1 satellite data), Orfeo tool box (high resolution image processing), SWAT (hydrological modelling), Post-GIS (spatial database), and R and python scripts (advanced spatial analysis and processing).

All the above software make up four different modules: EO processing module for image processing and analysis; Modelling module for operational hydrological forecasting of floods and drought hazards, as well as for long term planning and scenario analysis; GIS module for retrieving, visualising, and analysis of EO products; and a database module for storage of all processed data. WOIS has a processing toolbox structured as a QGIS plugin that provides a framework for integrating tools from various algorithm providers in the QGIS. The plug-in enables the creation of workflows from individual processing toolbox algorithms. The workflows provide a step-by-step guidance through more complex GIS processes, such as supervised classification, with the output of earlier steps being used as the input to the later ones.



More information on the WOIS toolkit on <http://www.tiger-net.org/index.php?id=11>

Types of “Free/Open Source” Software for Geospatial Applications

Athanasios Moysiadis
Department of Planning and Regional Development, University of Thessaly



Free and open source software is appreciated by many geoscientists for educational and research purposes. This is mainly due to the ease of use, the functionality, the free-use status and in most cases the fact that is available at no cost. The rapid advancement of computer technologies leads towards cheaper and more sophisticated geospatial solutions. Most of the processing in photogrammetry, remote sensing and geographic information systems depends directly on the technological advancement and the use of special software. Software is needed to collect, process and analyze geospatial data and validate the outputs.

The aim of this article is to distinguish the types of “free/open source” software to be used for educational or research purposes, rather than outlining the commonly used ones.

1 PROPRIETARY SOFTWARE

Proprietary software, namely commercial software, exist to support the aforementioned disciplines but it has strict license and distribution criteria. Nevertheless, universities, educational institutes, companies and individuals often fail to support financially such software. Alternatively, free and open source software nearly provides the same capabilities at no cost. Even though they may not fully cover the functionality and processes of proprietary software, they support a series of analytical processes.

2 FREE SOFTWARE

Free software means the free-use status rather than non-cost software. Users can process, analyze, edit, modify and distribute such software. The following criteria mainly characterize free software:

- use of software regardless of the aim of the research project,
- study of the way of use of the software according to the user's needs - access to the source code is essential,
- upgrade of the software and ability to publish it in the research community - access to the source code is essential,
- ability to redistribute copies of the software.

Each user is entitled to the above actions either privately or publicly without any prior notice, license or authorization. Free software does not necessarily mean non-commercial software; therefore, it can be commercially used and distributed. However, it is sometimes the case that national regulations prevent users from copying and distributing such software. As mentioned, modifications to free software are being made, provided that the source code is available. Frequent code modifications usually include free modules merged into the software. If the license policy does not provide the user with copyright authorization, this is not free software. Software manuals are free to download since they form an irreplaceable part of the software. Referring to free software, descriptions such as “open” or “for free” should be avoided, since they imply the cost rather than its use.

3 OPEN SOURCE SOFTWARE

Open source software is not the same as free software because open source does not necessarily mean for free, and in some cases their licenses are restrictive. Therefore, open source software does not comply with the above criteria for free software. Almost all free software is open source and almost all open source software is free.

According to the user's needs, a comparative outline is made to other types of software.

- *Public domain software* describes those without any license or copyright. This means the software is not patented. Since the source code is in the public domain, this is a special category of non-patented free software.
- *Non-free software* describes software whose use is not for free, the so-called semi-free and proprietary software.
- *Semi-free software* describes software whose use is not for free; however, its license allows a personal use for distribution or modification purposes.
- *Proprietary software* describes software whose use is not for free or semi-free. Its use, distribution or modification is strictly forbidden without prior license.
- *Freeware software* can be distributed but not modified, since the source code is not available. Therefore, it is not free software.
- *Shareware software* is licensed software, distributed to the users for a specific duration. After that period, a cost is charged.

In this article, a brief distinction of different types of “free/open source” software was made before being incorporated by users for research and educational initiatives for Geomatics.

References

1. Lemmens M., 2011. Geo-information: Technologies, Applications and the Environment, 1st ed., Springer.
2. Open Source Initiative, <http://opensource.org>.
3. The Open Source Geospatial Foundation, <http://www.osgeo.org>.

The ISPRS Student Consortium and Working Group V/5 Summer Schools 2017

Sheryl Rose Reyes
United Nations University

The ISPRS Student Consortium and Working Group V/5 are announcing this year's summer schools. We are pleased to inform you that there will be 3 summer schools for the remainder of 2017: 2 summer schools in Latin America and 1 summer school in Asia.

Brazil: YP&SS - IEEE/GRSS-Young Professionals & 16th ISPRS Working Group V/5 and Student Consortium Summer School 2017

This is a joint event organized by Brazilian Universities with support and funding from two scientific societies *IEEE - Geoscience and Remote Sensing Society (GRSS)* and the *ISPRS - International Society for Photogrammetry and Remote Sensing*.

Recently, the collection of both airborne and terrestrial LiDAR data acquired over a range of environments has been increasing considerably. Although an unprecedented amount of data is available, there is consensus that the tools/techniques for extracting useful information from these datasets, as well as the use of proper multivariate statistical methods, are still lacking. Additionally, LiDAR fundamentals, data processing and advanced multivariate statistical analysis are topics usually not covered in detail in both undergraduate and graduate Remote Sensing courses. The cases are the same for both globally or locally, especially in Brazil. The goals of this joint event entitled "ISPRS Summer School and IEEE/GRSS Young Professionals 2017" are to expose young professionals to new LiDAR processing and multivariate statistics techniques and to develop a vision for enhancing their own professionals and research careers using both. Employing a combination of instruction, hands-on tutorials, and group discussion, both events will provide an excellent opportunity for learning about the state-of-the-art LiDAR processing and advanced multivariate statistic techniques. This event will also

encourage interaction and networking with an engaged and multi-disciplinary group of young researchers.

Dates: October 2 - 6, 2017

Website: <http://www.cav.udesc.br/?id=1017>

India: Geo-Processing Tools and Technologies in Citizen Science

Citizen science in today's scenario have become a valuable approach, wherein scientific data for understanding the underlying phenomenon could be collected by volunteers/non-specialist within a shorter amount of time. It also enables volunteers to meaningfully participate under different levels of engagement. Advancements and convergence of technologies (Information and communication technologies (ICT)), especially the Internet, Web 2.0 and mobile technology has further assisted in such endeavor, not to mention the location sensors (GPS) and camera which enables citizen to collect geotagged data including field photographs. Nowadays, citizens/volunteers play an important role by working as "sensors" on the ground, helping government/institutions by collecting and analyzing data. It is being used worldwide for policy advocacy, e-government, and e-democracy. Furthermore, it was found extremely useful in recent disasters like Haiti earthquake (2010) and Nepal earthquake (2015) wherein it assisted towards timely rescue and relief efforts. Wikipedia "the free encyclopedia" (www.wikipedia.org) is a classic example, wherein volunteers create and edit content. Similarly, the publicly available geospatial domain OpenStreetMap project, is available where volunteers contribute in mapping of whole world (www.openstreetmap.org).

The ISPRS summer school with the theme "Geo-Processing Tools and Technologies in Citizen Science" shall provide an overview of evolving domain of citizen science, enabling geospatial tools and technologies along with use cases and focus on the data collection, quality control and analysis issues on citizen science projects. Moreover it shall cover different aspects and challenges of citizen science and use of geo-processing tools to increase citizen's participation and improving quality of collected data. Summer School

shall cover following broad topics:

- Citizen Science: Prospects and Challenges
- Citizen science projects at local and global scales
- Free and Open Source Geospatial (FOSS4G) solutions for crowd-sourcing
- Data collection and analysis in citizen science projects using geo-processing tools
- Quality control methods for geographically enabled data and integration of data from different sources

Dates: October 30 - November 3, 2017

Website: <http://isprs-ss2017.iirs.gov.in/>

Chile: Land Cover Assessment and Monitoring Using Google Earth Engine

Apart from climate, one of the most important components of global change is the change in land use and land cover (LULC). LULC change detection is a key task for better understanding landscape dynamics and sustainable management planning. Mapping and monitoring LULC has become one of the most important applications of remote sensing (RS). Today, we face an unprecedented amount of public RS data and new tools are already available to transform it into useful information. Google Earth Engine (GEE) is a cloud computing platform for processing RS data that provides access to a large collection of satellite imagery and the necessary computational power to analyze them. This summer school will focus on the use of machine learning algorithms to classify Landsat images using GEE to produce land cover maps and monitor change in time.

The workshop will be organized in three parts, each one having a theory lecture and hands-on-computer practice:

1. Bases for LULC mapping using RS data and presentation of GEE.
2. LULC classification techniques and implementation in GEE.
3. LULC change detection and implementation in GEE.

Dates: November 13-17, 2017

Website: http://www.gep.uchile.cl/Proyectos/Summer_School/index.html

Opportunities

Banting Postdoctoral Fellowships

For more information follow the link below;

<http://banting.fellowships-bourses.gc.ca/en/app-demoverview-aper-cu.html>.

President's PhD scholarship at Imperial College London

Follow the link below for more details

<https://www.imperial.ac.uk/study/pg/fees-and-funding/scholarships/presidents-phd-scholarships/>.

The German Chancellor Fellowship

For more details follow the link

<https://www.humboldt-foundation.de/web/german-chancellor-fellowship.html>.

PhD scholarships by The Austrian Academy of Science

For more information follow the link below;

<http://stipendien.oeaw.ac.at/de/stipendium/doc-doktorandinnenprogramm-der-%C3%B6sterreichischen-akademie-der-wissenschaften>.

Masters Scholarship Opportunities

VLIR-UOS Master Degree Scholarships for Developing Countries in Belgium, 2017

More details can be found on the scholarship website;

<http://www.vliruos.be/scholarships>.

University of Westminster scholarships

For more details follow the link below;

<https://www.westminster.ac.uk/study/prospective-students/fees-and-funding/scholarships/january-2017-scholarships/westminster-international-scholarship>.

Netherlands fellowship program 2018

For more details follow the link below,

<https://www.studyinholland.nl/scholarships/highlighted-scholarships/netherlands-fellowship-programmes>.

Please visit our SC web page www.isprs-sc.org where you will find more information about Student Consortium, our previous Newsletter issues, SC activities, photo galleries from previous Summer Schools, interesting links etc.

Our previous Newsletter issues

