Volume 6, No. 04

isprs

April 2020





Be part of "Geo for All"

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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.
 (https://wiki.osgeo.org/wiki/Ottawa Chap

<u>ter)</u>

4. Conferences

Europe

<u>April 2020</u>

1. 21-24 April: <u>GISRUK</u> Venue: London, UK. (*Postponed until autumn*)

<u>May 2020</u>

2. 7-9 May: GISTAM 2020 6th International Conference on Geographical Information Systems Theory, Applications and Management Venue: Prague, Czech Republic

3. 12-15 May: <u>INSPIRE Conference</u> 2020

Venue: Dubrovnik, Croatia (Canceled. To be scheduled in September/ October 2020)

September 2020

4. 15-18 September: <u>GIScience</u> Venue: Poznań, Poland

North and Central America and the Caribbean

April 2020

5. 3 April: QGIS New York Venue: Cornell University, Mann Library, Ithaca, New York, USA (Postponed)

6. 6-10 April: <u>AAG 2020 Annual Meeting</u> (virtual meeting) including the <u>Symposium</u> on Frontiers in CyberGIS and Geospatial Data Science

Venue: Denver, Colorado, USA

<u>May 2020</u>

7. 24-27 May: 17th International Conference on Information Systems for Crisis Response and Management (ISCRAM 2020)
Venue: Blacksburg, Virginia, USA (Postponed until May 2021)

August 2020

24-29 August: FOSS4G.
 Venue: Calgary Telus Convention
 Centre, Calgary, Canada

October 2020

9. 5-9 October: III International Convention "Geography, Environment and Land Management" Venue: University of Havana, Convention Centre, Havana, Cuba







Editorial Board

Please refer to the appropriate person according to the following table:			
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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	
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Co-editor	Codrina Ilie, PhD student at the Technical University of Civil Engineering, Bucharest, Romania	The Balkans, Ukraine, Moldavia, Estonia, Lithuania, Belarus, Latvia, Hungary, Czech Republic, Slovakia	
Production Designer	Nikos Voudrislis, MSc, PhD in geography education. nvoudris@gmail.com	Design and final formation of the newsletter	
	Paulo César Coronado Sánchez, Professor of computer sciences at Universidad Distrital Francisco José de Caldas, Head of GISEPROI and OSGeoLabUD research Group. Bogotá, Colombia <u>paulocoronado@gmail.com</u>	Translator and designer of the Spanish Edition	
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GeoForAll Themes

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OpenCity Smart

Theme under revision

Teacher Training & School Education

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

Mail list: geoforall-teachertraining@lists. osgeo.org

> Website:

http://wiki.osgeo.org/wiki/GeoForAll TeacherTraining SchoolEducation

CitizenScience

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

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

Website: <u>http://wiki.osgeo.org/wiki/Geocrowdsourcing Citi</u> <u>zenScience FOSS4G</u>

AgriGIS

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

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

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

GeoForAll Regional Chairs and Contact Information

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

Iberoamerican Region

Chairs: Sergio Acosta y Lara (Uruguay) and Silvana Camboim (Brazil) and Antoni Pérez Navarro (Spain). Subscribe at mail list: <u>https://lists.osgeo.org/mailman/listinfo/geoforall-</u> <u>iberoamerica</u>

Email: geoforall-iberoamerica@lists.osgeo.org.

Africa Region

Chairs: Msilikale Msilanga (Tanzania), 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





5. Webinars

The recording of the webinar "Unlocking the potential of open data to promote Agribusiness for Youths in Africa" is available at https://www.youtube.com/watch?v=BHxJ5MyjCW 4. All recordings of previous webinars of the Global Open Data for Agriculture and Nutrition (GODAN) and the Data Rights and Responsible Data Working Group are made available at the YouTube CTA channel at https://www.youtube.com/playlist?list=PLv8yRTnf 9h7j-5SoKRs6lEsdI1EyzM8Cc

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• Distinguished Geospatial Speaker Series: Implementing Open Geography Education (<u>https://www.directionsmag.com/webinar/9446</u>).



7. Training programs

 GeoForAll educational materials have been transferred to our new web site. <u>GeoForAll</u> <u>educational inventory system, a</u> <u>place to search and share</u> <u>educational materials</u>



 Use of geodata in the social sciences by Dr. Jan-Philipp Kolb Date: May 04 – 05 2020 Venue: Mannheim B2,8, Germany / Course language: German

12. Articles

<u>Acronyms</u>

by Nikos Lambrinos, Chief Editor, and Michael Finn.

For those who would like to support this effort, please send any acronyms to the Chief Editor (<u>labrinos@eled.auth.gr</u>).

3DEP: 3-D Elevation Program

AAG: Association of American Geographers

AGI: Ambient Geographic Information

AGS: American Geographical Society

AGU: American Geophysical Union

AM/FM: Automated Mapping/Facilities Management

API: Application Programming Interface

ASPRS: American Society for Photogrammetry and Remote Sensing

AURIN: Australian Urban Research Infrastructure Network

BBSRC: Biotechnology and Biological Sciences Research Council

BIM: Building Information Modelling

CAADP: Comprehensive African Agricultural Development Programme

CAD: Computer Aided Design

CaGIS: Cartograhy and Geographic Information Society

CCGI: Collaboratively Contributed Geographic Information

CEGIS: Center of Excellence for Geospatial Information Science

CEOS: Committee on Earth Observation Satellites

CI: CyberInfrastructure

CLGE: The Council of European Geodetic Surveyors

CODATA: Committee on Data for Science and Technology

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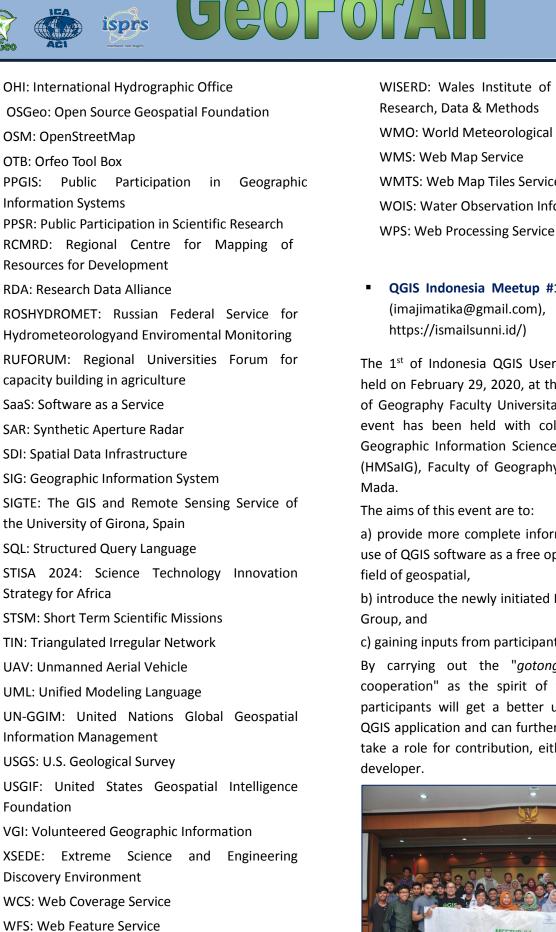




COGO: Coordinate geometry **CRC: Census Research Centre CRS: Coordinate Reference System** CSA: Canadian Space Agency **CUDA: Compute Unified Device Architecture** DAAC: Distributed Active Archive Center (of NASA) **DEM:** Digital Elevation Model **DSM:** Digital Surface Models DWG: Design file format **DXF:** Drawing Interchange File ECMWF: European Center for Medium range Weather Forecasting EOS: Earth Observation Science EOSDIS: Earth Observing System and Data Information System **EPA: Environmental Protection Agency** EPSG: European Petrol Survey Group (used in projection IDs) ESA: European Space Agency ESERO: European Space Education Resource Office 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** GODAN: Global Open Data for Agriculture and Nutrition **GPS: Global Positioning System GPX: GPS Exchange Format** GRASPgfs: Geospatial Resource for Agricultural Species and Pests and Pathogens with workflow integrated modeling to support **Global Food Security**

GSoC: Google Summer of Code HOT: Humanitarian OpenStreetMap Team HPC: high-performance computing ICA: International Cartographic Association ICSU-WDS: International Council for Science -World Data System **IDE:** Spatial Data Infrastructure **INSPIRE:** Infrastructure for Spatial Information in Europe IPGH: Pan American Institute of Geography and History ISO: International Organization for Standardization ISPRS: International Society for Photogrammetry and Remote Sensing **ISPRS:** International Society for Photogrammetry and Remote Sensing JAXA: Japan Aerospace Exploration Agency KML: Keyhole Markup Language LiDAR: Light Detection and Ranging LOC: Local Organizing Committee LOD: Level Of Detail MIL: Media and Information Literacy MoU: Memorandum of Understanding NAD: North American Datum NCSA: National Center for Supercomputing Applications NED: National Elevation Dataset NEPAD: NEw Partnership for African Development NGA: National Geospatial Intelligence Agency NHD: National Hydrologic Dataset NLCD: National Land Cover Dataset NSDI: National Spatial Data Infrastructure **NSF: National Science Foundation OECD:** Organisation for Economic Co-Operation and Development **OER: Open Educational Resources** OGC: Open Geospatial Consortium





WISERD: Wales Institute of Social & Economic Research, Data & Methods WMO: World Meteorological Organization WMS: Web Map Service WMTS: Web Map Tiles Services WOIS: Water Observation Information System

QGIS Indonesia Meetup #1 (From Ismail Sunni (imajimatika@gmail.com), Software Engineer, https://ismailsunni.id/)

The 1st of Indonesia QGIS User Group Meetup was held on February 29, 2020, at the Merapi Auditorium of Geography Faculty Universitas Gadjah Mada. This event has been held with collaboration from the Geographic Information Science Student Association (HMSaIG), Faculty of Geography, Universitas Gadjah

The aims of this event are to:

a) provide more complete information regarding the use of QGIS software as a free open-source tool in the field of geospatial,

b) introduce the newly initiated Indonesian QGIS User

c) gaining inputs from participants.

By carrying out the "gotong royong - mutual cooperation" as the spirit of the community, the participants will get a better understanding of the QGIS application and can further optimize its use and take a role for contribution, either as a user or as a



WGS: World Geodetic System

and Data Democracy

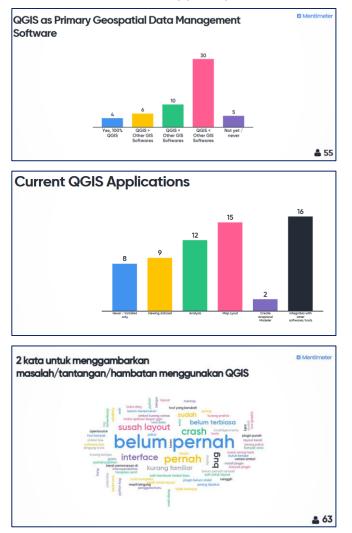
WGCapD: Working Group on Capacity Building





Attended by participants who were mostly students as well as practitioners in the geospatial field enthusiastic to follow the series of agenda. Starting to explore the understanding of participants related to QGIS, 5 participants had never used QGIS with the average participant still combining QGIS with another mapping application. However, when we are trying to explore the depth of the use of QGIS, the largest percentage actually comes from participants who have integrated with other platforms, even though indeed the average is still at the level of analysis and layout. In addition, a couple of problems such as bugs, user interfaces (less familiar), crashes, and many others were still delivered by participants.

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We asked the participants to describe two-words that become a challenge or constraints for them to use QGIS. Most of the participants answered, "Belum Pernah" meaning that most of them never use QGIS, as the word-cloud figure above shows. It's interesting because that means most of the participants might have an interest in QGIS, but they never had a chance to learn how to use it.

With a quite diverse understanding level of each participant, the presence of the speakers at this event provided enough insight to the participants regarding the development and use of QGIS. Material presented at this sharing session includes:

a) Ibnu Rosyadi: The Development of QGIS Open-Source in Indonesia

b) Firman Hadi: Basic Introduction of GRASS in QGIS

c) Nur M Farda: Land Use Change Mapping with Machine Learning and Cellular Automata in QGIS

d) Afandi Ahmad: Forest and Environmental Management Application Using QGIS

e) Eko Kalisno: Village Mapping Application Using QGIS

While session activities mostly discussed using QGIS as users, the participants were also given the information about easy ways to make a contribution in the QGIS project. One of the contributions activities is to report bugs that were exemplified through the Quick Demo of Ismail Sunni- QGIS contributor, which was carried out through a video call from Germany. Participants are introduced to the way to report bugs/problems encountered through the link https://github.com/qgis/qgis/issues. In addition, it was also shown how to be involved in the process of translating QGIS into Indonesian using http://transifex.com, bearing in mind that the current level of translation into Indonesian is still below 35%.

Through this meetup, the community invites participants to get involved by always reporting if they find bugs and regularly becoming a QGIS translator to the Indonesian Language. The meetup agenda is hoped to become an annual activity of the QGIS Community in Indonesia, which of course is supported by local chapters which can become a forum for communication related to the QGIS project in other cities/districts in Indonesia. Because the purpose of this community is to become an official QGIS user group in Indonesia, we open communication media channels through websites, Instagram, Twitter,



telegram, blogs, and mailing lists, of course inviting more people to become volunteers.

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The idea that appeared from discussions on social media and meetups yesterday was the need to develop a new QGIS guideline/module in Indonesian Language and equipped with applicative case studies. It comes to meet the needs of QGIS users in Indonesia who need a standard guideline that is easy to access and understand and in accordance with the themes in the scope of concentration.

The 1st QGIS Indonesia Community Meetup was attended by 62 participants and 5 speakers with the support of the committee: 12 people from HMSaIG and 7 people from the QGIS Indonesia Community. This activity is also broadcast live through the QGIS User Group Indonesia YouTube channel. Although participants are not charged any fees in registration, this activity can be held because of donations through the sale of shirts bearing the QGIS Project and the Indonesia QGIS User Group logo, as well as several sponsors from local partners. The Indonesia QGIS User Group is open to anyone who has an interest in QGIS, either for users or developers who are interested in or have contributed to QGIS. With the spirit of "gotong royong - mutual cooperation", the presence of the Indonesian QGIS User Group is expected to be a forum/corner for QGIS users and developers in Indonesia to discuss subjects related to QGIS, and obviously to encourage the contribution of Indonesia to QGIS Project.

• DUTCH INITIATIVE IN LATIN AMERICA: OBSERVATION OF AIR QUALITY FROM SPACE (from Paul Geerders, TNO / TROPOMI representative for Latin America / Caribbean, Email: paul@pgcons.nl)

The European Space Agency (ESA) within its Earth Observation program launched the Sentinel-5p satellite on October 13, 2017 (forerunner of the future Sentinel-5 satellite in the Copernicus series). This satellite is equipped with an instrument called TROPOMI (Tropospheric Monitoring Instrument) dedicated to monitoring air pollution from space.

TROPOMI, an instrument with the most advanced and innovative technology, was developed by a

consortium of Dutch entities: TNO, Airbus Defense and Space, KNMI, and SRON; and was financed by various ministries of the Dutch government: the Ministry of Economy and Climate Policy; the Ministry of Education, Culture and Science; and the Ministry of Water Infrastructure and Management; through the Dutch Space Office (NSO).

The Dutch organization TNO, according to its focus on "Innovation for Life" (<u>www.tno.nl</u>) and as a partner of the consortium mentioned above, has within its responsibilities to democratize the information of the instrument. In this context, the TNO has taken the initiative to promote TROPOMI in Latin America and the Caribbean. The main objective of the initiative is to explain the potential of the data of this instrument and facilitate its use to the governmental entities of the region and their air quality management programs.

Currently, contacts have been established with relevant entities in the region, such as in Bolivia, Chile, Colombia, Ecuador, Mexico, Panama, and Peru. In Uruguay and Colombia, national workshops on the subject have been held in alliance with the respective Ministries of the Environment, with the wide participation of government entities, universities, the private sector, and the community. During these oneday workshops, more technical-scientific details of the TROPOMI instrument and the application of its data are clarified.

During these events, the possibility of a bilateral technical cooperation and training project with the TNO focused on the transfer of knowledge and technology is presented, so that they can take advantage of the data from this valuable instrument TROPOMI in favor of air quality management. In this context, it is about the transfer and training of the entities and relevant experts to ensure that the data from TROPOMI independent of the TNO can be used in the future. Possible elements of such a project are:

 Detailed familiarization with the operation of the TROPOMI instrument and with the data generated by the instrument.





 Provision of information on (free) access to TROPOMI data through ESA's dedicated site and through TNO's unique privileged channels

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Geolon

• Demonstration in the form of a pilot project of the feasibility of using satellite data for the detection of pollution sources at the nation level

 Implementation in the relevant entities of the Lotus-Euros simulation model to provide a forecast of air quality on a daily and national level, and training of the corresponding experts

 Implementation in the relevant entities of the TOPAS TNO system as the basis for understanding which regions (provinces, cities, countries abroad) contribute to the air quality in the country, and training of the corresponding experts

 Provision of inspiration and sharing experience in strengthening terrestrial air quality monitoring systems

It is hoped that the TNO initiative may result in the establishment of a regional network of TROPOMI data users in Latin America/Caribbean, facilitating cooperation and the exchange of experiences.

17. Ideas / Information

1. If you are interested in educational material, then go to <u>https://www.osgeo.org/initiatives/geo-for-</u> <u>all/in-your-classroom/</u> where you can find software resources for your classroom. Also, go to "Resources" <u>https://www.osgeo.org/resources/</u> to get a guidance on how to use open source projects and tools.

2. There is an invitation to anyone interested in submitting research articles to the Special issue "Advances in Social Network Analysis – Spatio-Temporal and Semantic Methods" in the Open Access Journal ISPRS International Journal of Geo-Information. More information and the full call for papers can be found at

https://www.mdpi.com/journal/ijgi/special_issues/so cial_spatial

Submission deadline: 30 June 2020.

Data from geospatial applications, such as social media, location-based service (LBS), and volunteered geographic information (VGI) platforms, have become a prominent source for modeling human behavior and for better understanding complex social dynamics in geographic spaces. The massive amount of multidimensional data (spatial, temporal, semantic) from these sources is typically unstructured and thus calls for an advance in data representation, modeling, analysis, and visualization for the successful transition from data to information. This Special Issue is inviting contributions that demonstrate integrated analysis of spatial, temporal, and semantic data from social networks, including their content, linkage, and structure, towards a better understanding of social behavior, human interaction patterns, and the dynamic characteristics of real-world phenomena and events. This involves novel use of machine learning approaches, analysis frameworks, data mining, and (geo-)statistical methods to exploit unstructured content of social network data. This Special Issue also encourages the demonstration of new analytical tools; discussion of current data privacy and licensing issues; the exploration of data from lesser known social media, LBS, and VGI platforms; and the application of fusion methods of data across multiple platforms.

3. Special Issue "Geospatial Open Systems" ISPRS. International Journal of Geo-Information

This Special Issue intends to synergize insight about the state of knowledge of open systems scoping, design, implementation, deployment, use, and sustainability for geo-information (geospatial) applications. Manuscripts that broaden and/or deepen insight into these topics are candidates for the Special Issue.

Scope: Open systems provide free access to geo-data and geo-information in a variety of geospatial domains, such as environmental science and management, human dynamics, transportation planning and management, geo-information





crowdsourcing, community organizing, and geosciences, among others. Open systems enable access for almost everyone, barring any illegal activity. Open systems might or might not use open source software as part of the development efforts. Open knowledge systems now in development for various applications promise to transform how people make use of data, information, evidence, and knowledge. The Special Issue explores the past, present, and future of open systems environments addressing data, information, and knowledge for geospatial applications. Any aspect of open geospatial data, information, knowledge, and software systems is a relevant topic as long as the topic is well reasoned and developed in a thorough manner in line with IJGI guidelines. Prospects for development and use of geospatial open source software are relevant for consideration. Software applications addressing these topics are also part of the scope, but the issue is not limited to these topics.

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Deadline for manuscript submissions: 31 October 2020

4. The Center for Fisheries Research (CIP) belonging to the Ministry of Food Industry, together with other national institutions, is pleased to inform you that from May 18 to 22, 2020, the IV International Workshop on FISHING, POLLUTION AND ENVIRONMENT will be held, which summons scientists and other professionals linked to the sector, as well as businessmen, and policy makers, with the objective of contributing to the scientific exchange on important and current issues in fisheries, industrial processing, aquaculture, aquaculture health, safety, pollution aquatic, taking into account the challenges that fish production faces on a global scale. The Workshop will promote a framework of reciprocity, the exchange of experience in view of the commitments to achieve Food Security, based on the sustainable use of fishery resources and the sustainability of aquaculture, as well as the increase in the added value of the products of the sea.

Those interested in obtaining information about the Workshop, send email to merisla@cip.alinet.cu and mrubio@cip.alinet.cu

5. GODAN Action. (2019 December 20). GODAN Action Online Course on Open Data Management in Agriculture and Nutrition (Version v1.0). Zenodo. http://doi.org/10.5281/zenodo.3588148

The course is provided in English. It consists of five units as follows including 18 lessons. The content was developed in November 2017 and last edition was delivered in 2018. Unit 1: Open Data Principles Unit 2: Using Open Data Unit 3: Making Data Open Unit 4: Sharing Open Data Unit 5: Intellectual Property and Copyright You can find the full published curriculum at https://www.godan.info/documents/curriculumopen-data-and-research-data-managementagriculture-and-nutrition and https://aims.gitbook.io/open-data-mooc/

6. The Faculty of Geography of the University of Havana and the co-sponsoring institutions convene the III International Convention "Geography, Environment and Land Management" under the slogan "For inclusive and sustainable territorial governance and management".

The event will be held from October 5 to 9, 2020, at the Convention Center of the University of Havana. General objective of the Event:

Contribute to the analysis and dissemination of research carried out in the country and in other regions of the planet, mainly in Latin America, in the thematic areas of this III Convention, as well as the promotion of the scientific debate on the vital problems that currently exist in the geographical space and their transformation in view of the progress of the globalization and the dominant neoliberal orientation, which require a geographical education that contributes to the construction of a new culture of inclusive, participatory planning, governance and territorial management, and the evaluation of experiences accumulated in overcoming the pressing problems derived from climate change.

For more information: Dra. C. Nancy Pérez Rodríguez (<u>nan@geo.uh.cu</u>)