



FIGURE 2. UYGU2021 registrants by countries.

FUTURE PLANS

The GRSS Turkey Chapter intends to continue hosting online webinars as well as half-day seminars to leverage its newly enhanced social media presence to broaden its appeal and potentially attract new members to GRSS.

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The IEEE GRSS Brazil Chapter: 2020 Activities

The IEEE Geoscience and Remote Sensing Society (GRSS) Brazil Chapter comprises 49 professionals and 57 student members, totaling 106 members in 2020. The following Chapter officers performed services during 2020:

- chair: Veraldo Liesenberg (Santa Catarina State University)
- vice chair: Jefersson Alex dos Santos (Federal University of Minas Gerais)
- secretary: José Marcato Junior (Federal University of Mato Grosso do Sul)
- treasurer: Alessandra Rodrigues Gomes (Brazilian Institute for Space Research)

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- ▶ Young Professionals (YP) representative: Rafael Lemos Paes (Brazilian Airforce)
- ▶ advisor/counselor (for Student Branches): Rosa Elvira Correa Pabón (Vale Institute of Technology)
- ▶ Student Activities: Nayara Vasconcelos Estrabis (Federal University of Mato Grosso do Sul).

This article presents the GRSS Brazil Chapter's activities that occurred in 2020. Due to the COVID-19 pandemic crisis starting in early 2020, we still promoted some activities virtually. The virtual activities comprised technical lectures in the form of webinars, round tables, and short courses. The activities and information about the GRSS Brazil Chapter are available at <https://r9.ieee.org/brazil-grss/>.

In this article, the following structure will be adopted. First, the activities of our annual event are briefly presented, and the design is summarized. Then, the events cosponsored with the Institute for Advanced Studies (IEAv) are then presented. Finally, some comments on the participation of Chapter members in cosponsored events from both GRSS and the International Society for Photogrammetry and Remote Sensing (ISPRS) are also highlighted.

TECHNICAL ACTIVITIES

2020 IEEE GRSS YP AND ISPRS SS

The Brazilian event 2020 IEEE GRSS and ISPRS: Sixth Edition of the GRSS YP and ISPRS Student Consortium (SC) Summer School occurred from 16 October to 10 December 2020. The previous events occurred in person in different

Brazilian cities and are further reported in Liesenberg et al. [1]. Usually, the in-person events were able to gather up to 120 participants.

Initially, the event was planned to occur in person during 12 to 16 October 2020 in Belo Horizonte, State of Minas Gerais. However, due to the pandemic situation, it was changed to an online event with weekly lectures, all held in English. The annual event benefitted from the Distinguished Lecturer program offered by GRSS, whose concept and list of available speakers were presented by Le Vine [2], [3], respectively.

Since the event was online, we did not charge for registration. It was, therefore, totally free of charge. The main webpage of the event was <http://grss-isprs.dcc.ufmg.br/>, and this URL still provides access to the webinars. We registered more than 2,000 people from more than 45 countries worldwide. The profile of the participants was 67% students and 33% professionals.

The sixth GRSS YP and ISPRS SC Summer School event had 12 lectures in the form of webinars organized and conducted by GRSS Brazil Chapter members. A list containing the talks, lecturer name and institution, and the link for the webinar content is shown in Table 1. The webinars were broadcast on the Mato Grosso do Sul GRSS IEEE Student Branch Chapter, ISPRS SC, and the Departamento de

DUE TO THE COVID-19 PANDEMIC CRISIS STARTING IN EARLY 2020, WE STILL PROMOTED SOME ACTIVITIES VIRTUALLY.

TABLE 1. SUMMARY OF THE WEBINARS HELD DURING THE SIXTH GRSS YP AND ISPRS SC SUMMER SCHOOL.

WEBINAR TITLE	LECTURER AND INSTITUTION	YOUTUBE SHORTLINK*
The Role of Geosciences in Achieving Deforestation-Free Supply Chains in Brazil	Prof. Dr. Raoni Guerra Lucas Rajão Universidade Federal de Minas Gerais, Brazil	jghbTxkKW6U
Overview of the NASA TROPICS CubeSat Constellation Mission	Prof. Dr. William Blackwell Massachusetts Institute of Technology, USA	EAV9kSOexvA&t
Classification of Land Cover and Land Use based on Deep Learning	Dr. Franz Rottensteiner Leibniz University Hannover, Germany	t7k4leoHO3Q&t
Machine Learning for Geospatial Data	Prof. Dr. Jan Wegner ETH Zurich, Switzerland	1nOtqR1xtpM&t
UAV Remote Sensing for Hydro-Morphological Monitoring	Dr. Anette Eltner TU Dresden, Germany	28L3B_MlYzc&t
NASA Cyclone Global Navigation Satellite System Earth Venture Mission	Prof. Dr. Christopher Ruf University of Michigan, USA	zDurlbttfF8
Basics of SAR Polarimetry	Prof. Dr. Carlos López-Martínez Universitat Politècnica de Catalunya, Spain	zHh2_W3H65w
Pansharpening: An Overview and Perspectives	Prof. Dr. Mauro Dalla Mura Grenoble INP, France	F76psjN6c0w
GeoAI: Applying Deep Learning to Geospatial Data	Dr. Rohit Sing Environmental Systems Research Institute, India	Kel22yEITRk&t = 4694s
Hyperspectral Remote Sensing Applications in Earth Observation	Dr. Sabine Chabrillat German Research Centre for Geosciences, Germany	Available only on request (private link)
Hyperspectral Imaging in Agriculture and Forestry Applications	Dr. Eija Honkavaara Finnish Geospatial Research Institute, Finland	tYa-XXEqLCg
UAV Remote Sensing	Prof. Dr. Petra Helmholtz Curtin University, Australia	1qtTISoMq3g

Note: * <https://www.youtube.com/watch?v=> must be inserted before the links.

The figure displays 12 flyer templates arranged in a 4x3 grid. Each flyer is for a '2020 IEEE GRSS & ISPRS Young Professionals & Student Consortium Summer School' event. The flyers are organized as follows:

- Row 1:**
 - Flyer 1:** October 16th, 2020 | 14h (-3 GMT). Topic: 'The role of geosciences in achieving deforestation-free supply chains in Brazil'. Speaker: Raoni Rajão (UFMG, Brazil).
 - Flyer 2:** October 23th, 2020 | 14h (-3 GMT). Topic: 'Overview of the NASA TROPICS CubeSat Constellation Mission'. Speaker: William Blackwell (MIT, USA).
 - Flyer 3:** October 30th, 2020 | 10h (-3 GMT). Topic: 'Classification of land cover and land use based on Deep Learning'. Speaker: Franz Rottensteiner (Leibniz University Hannover, Germany).
- Row 2:**
 - Flyer 4:** November 06th, 2020 | 10h (-3 GMT). Topic: 'Machine learning for geospatial data'. Speaker: Jan Wegner (ETH, Switzerland).
 - Flyer 5:** November 13th, 2020 | 10h (-3 GMT). Topic: 'UAV Remote Sensing for Hydro-Morphological Monitoring'. Speaker: Anette Eitner (TU Dresden, Germany).
 - Flyer 6:** November 13th, 2020 | 15h (-3 GMT). Topic: 'NASA Cyclone Global Navigation Satellite System (CYGNSS) Earth Venture Mission'. Speaker: Christopher Ruf (University of Michigan, USA).
- Row 3:**
 - Flyer 7:** November 20th, 2020 | 14h (-3 GMT). Topic: 'Basics of SAR Polarimetry'. Speaker: Carlos López-Martínez (Universitat Politècnica de Catalunya, Spain).
 - Flyer 8:** November 27th, 2020 | 14h (-3 GMT). Topic: 'Pansharping: An overview and perspectives'. Speaker: Mauro Dalla Mura (Grenoble INP, France).
 - Flyer 9:** December 4th, 2020 | 10h (-3 GMT). Topic: 'GeoAI: Applying Deep Learning to Geospatial Data'. Speaker: Rohit Singh (Earl's R&D Center, India).
- Row 4:**
 - Flyer 10:** December 10th, 2020 | 10h (-3 GMT). Topic: 'Hyperspectral remote sensing applications in Earth Observation'. Speaker: Sabine Chabrillat (GFZ-Potsdam, Germany).
 - Flyer 11:** December 10th, 2020 | 14h (-3 GMT). Topic: 'Hyperspectral Imaging in agriculture and forestry applications'. Speaker: Eija Honkavaara (Finnish Geospatial Research Institute, Finland).
 - Flyer 12:** December 10th, 2020 | 21h (-3 GMT). Topic: 'UAV Remote Sensing'. Speaker: Petra Helmholz (Curtin University, Australia).

Each flyer includes a 'Chairs Meeting' section with a list of names and their affiliations. At the bottom of each flyer, there are logos for 'Sponsorship' (IEEE, IGARSS, ISPRS, GRSS, ISPRS) and 'Organization' (IEEE, IGARSS, ISPRS, GRSS, ISPRS).

FIGURE 1. An overview of the 12 flyers used for the promotion on social media from both GRSS and ISPRS Societies. A description of the talks is given in Table 1.

Ciência da Computação-Federal University of Minas Gerais (DCC-UFGM) YouTube channels. However, only the ISPRS SC links are provided in the table, to avoid redundancy.

Figure 1 shows a mosaic of the flyers used to promote the webinars in the social media of the GRSS and ISPRS SC. We highlighted the efforts of the ISPRS SC in promoting the events in their social media and volunteering the platform for broadcasting. In addition, the SC performed several activities devoted to YPs, the concept of which is detailed in Reyes et al. [4]. The advertisement strategy was to promote the webinars in different social media of both GRSS and ISPRS (e.g., Facebook, LinkedIn, Instagram, and Twitter).

Other complementary advertisements were made in related scientific societies and communities.

Another adopted strategy to attract local audiences and students was to offer a special topic under a graduate program that consisted of writing short reports for each webinar. As a result, the minimum number of synchronized participants was 85. However, some specific webinar reached more than 300. However, the number of visualizations increased significantly during the first few days after each event. Interestingly, the most accessed webinar had more than 2,800 visualizations on the ISPRS SC YouTube channel.

TABLE 2. SUMMARY OF THE (A) WEBINARS, (B) ROUND TABLES, AND (C) TUTORIALS HELD DURING THE 10TH BRAZILIAN SYMPOSIA ON REMOTE SENSING IN DEFENSE APPLICATIONS. MOST OF THE ACTIVITIES WERE HELD IN PORTUGUESE.

(A)		
WEBINAR TITLE	LECTURER AND INSTITUTION	YOUTUBE SHORTLINK*
Introduction to Quantum Computing and Prospects of the Quantum Artificial Intelligence	Prof. Dr. Juliana Kaizer Vizzotto Federal University of Santa Maria, Brazil	IE5508XfPts
Supercomputers and GPGPU: Recent Technologies for High Computational Performance for Artificial Intelligence and Machine Learning Applications	Dr. Pedro Mário Cruz e Silva NVIDIA, Brazil Dr. Haroldo Fraga de Campos Velho National Institute for Space Research, Brazil	IE5508XfPts
The Contribution of the Imaging Sensors and Artificial Intelligence in the Multisensor Navigation and Anti-Collision Systems (Sense and Avoid)	Ten. Cel. Dr. Rafael Paes Institute of Advanced Studies, Brazil, and Aeronautics Institute of Technology, Brazil	VYcKqH5Did8
(B)		
The Vision of the Engineering Systems for Establishing the Image Database in Clouds for Deep Learning and Remote Sensing Data Science Applications	Prof. Dr. Elcio Hideiti Shiguemori Prof. Dr. Christopher Shneider Cerqueira Prof. Dr. Jonas Bianchini Fulindi Institute of Advanced Studies, Brazil, and Aeronautics Institute of Technology, Brazil	BgVuM4qY4Q0&t = 2672s
Brazil Data Cube Project: Perspectives About Data Organization and Machine Learning Services to Extract Information	Dr. Gilberto Ribeiro de Queiroz National Institute for Space Research, Brazil Vitor Conrado Faria Gomes Institute of Advanced Studies, Brazil, and Aeronautics Institute of Technology, Brazil	BgVuM4qY4Q0&t = 2672s
Mobility in Urban Areas: Concepts for Controlling Aerial Traffic With New Demands of the Door-To-Door Transport	Maj. Esp Jorge Alexandre Cap. Esp. Miranda Department of the Aerial Space Control, Brazil	VYcKqH5Did8
Empowering Scientific Writing Skills**	Prof. Dr. John R. Schuenemeyer University of Delaware and Southwest Statistical Consulting, LLC and IAMG DL, USA Prof. Dr. Alejandro Frey Victoria University of Wellington, New Zealand Dr. Evlyn Márcia Leão de Moraes Novo National Institute for Space Research, Brazil	VU6WjzcoXal
(C)		
Analytics for Change Detection Using Daily High Spatial Resolution Images	Dr. Adriano Junqueira Santiago and Cintra Consultoria, Brazil	VU6WjzcoXal
GEOBIA Approach for Extracting Attributes in UHR and VHR Images	Cap. Marielcio Lacerda Institute of Advanced Studies, Brazil, and Aeronautics Institute of Technology, Brazil	B1b20Vbyxa8
SERFA 2020 Pitch Challenge—Integrating Intelligent Systems: Aiming National Innovation and Technology	Igloo Network team	kQfkFoLaN7U&t = 11781s
Entrepreneurship and Startups Plus the Ideal Pitch (How to Communicate Efficiently and Persuasively in Five Minutes)	Paulo Mariotto BR Angels, Brazil Maurício Zanetti Igloo Network, Brazil	VU6WjzcoXal

Note: *<https://www.youtube.com/watch?v=> must be inserted before the links.

In each flyer, a profile photograph of the lecturer was placed in the center with a clear mention of the webinar title, lecturer's name, and institution. The moderators selected for each webinar consisted of three members of the remote sensing community and were categorized as chair, visiting researcher, and YP. The chair was responsible for making a brief presentation of the webinar and introducing the lecturer by highlighting their educational and professional career. The chair was also responsible for conducting the discussion session by delivering general impressions and comments with the support of both visiting researcher and the YP.

After the talk, the moderators read the questions submitted by the audience. This strategy enabled good conduction of the session by bringing both recent graduates and graduate students face-to-face with well-known Distinguished Lecturers. When selecting the chair session committee, the organization committee tried their best to consider a gender and geographic region distribution. It was also important to highlight the involvement of a Student Chapter in the activities [5]. Student Chapters have vital importance in the growth of a scientific society and may benefit when organizing their events based on the given topics.

SERFA 2020

This was the 10th edition of the event that started in 1996, and for the first time occurred in a virtual form due to the pandemic crisis. The *Sensoriamento Remoto de Aplicações em Defesa (SERFA)* symposium was hosted online, and the main webpage is <http://serfa.ieav.cta.br/>. It had the support of the GRSS Brazil Chapter in the organization. This event was locally organized by the Institute for Advanced Studies (IEAv) from 2 to 5 December 2020, in a virtual form with the theme "Rethinking the Future of Remote Sensing."

This specific event was divided into three blocks. The first one, held on the first two days, was devoted to promoting discussion about technological initiatives of Brazilian organizations on geoscience and remote sensing applications for security and defense. The second day focused on urban mobility and the role of geosciences in supporting it. Finally, the third day focused on tutorials with hands-on and student activities.

A summary of the activities is detailed in Table 2. It is important to mention that most of these activities were held in Portuguese due to the concept of attracting YPs, mainly those from undergraduate programs and secondary school.

OTHER GRSS-RELATED EVENTS

Several GRSS Brazil Chapter members attended the International Geoscience and Remote Sensing Symposium event that occurred virtually due to the pandemic situation. The event occurred virtually from 26 September to 2 October 2020. On the other hand, several GRSS Brazil Chapter members published papers in the Latin American GRSS and ISPRS Remote Sensing Conference (LAGIRS) event. Although initially planned to occur in Santiago, Chile, the event only considered the publication of the accepted papers. As a result, we had 23 papers accepted and pub-

lished made by Brazilian members. Finally, some members of the GRSS Brazil Chapter contributed to ISPRS publications such as the *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences* and *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*.

CONCLUDING REMARKS

The virtual event success stems directly from the close interaction of the Chapter with GRSS and ISPRS social media and active contact with members from academia, government agencies, and private sectors. In addition, initiatives bringing Chapter participation and support to SERFA promoted positive feedback.

Comparable importance was given to independent events organized by Chapter members in many country regions during the pandemic, promoting GRSS and ISPRS Societies. The flagship of such events is the GRSS YP and ISPRS SC Summer School, successfully held yearly since the Chapter foundation in 2015.

Innovative student-oriented activities carried out in 2019 and reported in Liesenberg et al. [1] brought motivations to continue offering student-related activities such as Pitch Battle and Hackathon that will influence the Chapter's plans for years to come. Interestingly, feedback is the requirement for more hands-on activities, and that will be targeted shortly. Similar concepts were also reported by Huguet et al. [6], which investigated students' reactions to geoscience lectures in more detail. Finally, it is also important to remember that hybrid activities will be necessary for GRSS Chapters once pandemic crises are over, enabling a higher number of members to attend regular activities and increasing the total number of members.

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GRS

New Editors in Chief for the Geoscience and Remote Sensing Society

The IEEE Geoscience and Remote Sensing Society (GRSS) seeks new Editors in Chief (EIC) for its flagship journal *Transactions in Geoscience and Remote Sensing (TGRS)* and its relatively new magazine *Geoscience and Remote Sensing Magazine (GRSM)*. The terms of the present EICs (Simon Yueh for TGRS and Jim Garrison for GRSM) expire at the end of this year and we would like to have this position filled by July of this year to provide a period of overlap with the present EICs.

The duties of the TGRS EIC are to manage the journal by assigning papers to Associate Editors for review and making the final decision on each paper. They are also responsible for the management of the Associate Editors that constitute the TGRS Editorial Board. TGRS has grown to the point where we have added Associate Editors in Chief (AEiC, Joel Johnson, and Xiuping Jia) who will continue in the near future. These AEiCs assist the EIC in the review responsibilities and help to reduce the load on the EIC. TGRS is a monthly publication and is now electronic only. GRSS funds a full-time editorial assistant for the TGRS EIC.

For GRSM there is additional effort involved in maintaining columns and comments. GRSM publishes tutorials and other types of informational technical articles that must be reviewed in keeping with IEEE policy. The magazine is published quarterly electronically on IEEE Xplore and digitally. For a modest additional cost, print can be requested. GRSS funds a part-time editorial assistant for GRSM.

All EICs coordinate the management of their publications with the Vice President for Publications of GRSS (Bill Emery). The EICs are ex-officio members of the GRSS Administrative Committee (AdCom) and participate in all GRSS AdCom activities. They vote on all GRSS issues except for the selection of new AdCom members. Anyone interested in these positions should contact Bill Emery (emery@colorado.edu) before June 15, 2022, and specify if they are interested in TGRS or GRSM. Please provide your CV and a list of references with contact information.

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