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INTERVIEW

Latin America Region

Interview with Lisandro Zambenedetti Granville, Director of the LA Region

By Stefano Bregni, Global Communications Newsletter Editor in Chief, Vice-President for Conferences, and Lisandro Zambenedetti Granville, Director of the LA Region

This is the fourth article in the series of nine, started in May 2018 and published monthly in the IEEE ComSoc Global Communications Newsletter, which covers all areas of IEEE ComSoc Member and Global Activities. In this series of articles, I introduce the Vice-President and six Directors on the Member and Global Activities Council (namely: Sister and Related Societies; Membership Services; AP, NA, LA, EMEA Regions) and the two Chairs of the Women in Communications Engineering (WICE) and Young Professionals (YP) Standing Committees. In each article, one by one they present their sector activities and plans.

Stefano Bregni

Lisandro Zambenedetti Granville

In this issue, I interview Lisandro Zambenedetti Granville, Director of the LA Region. Lisandro is an associate professor at the Institute of Informatics of the Federal University of Rio Grande do Sul (UFRGS), Brazil. He received his M.Sc. and Ph.D. degrees, both in computer science, from UFRGS in 1998 and 2001, respectively. He is president of the Brazilian Computer Society (SBC) and was previous chair (2013-2017) of ComSoc's Committee on Network Operations and Management (CNOM). He has served as a TPC member for many important events in the area of computer networks (e.g., IM, NOMS, and CNSM) and was TPC co-chair of DSOM 2007, NOMS 2010, NetSoft 2018, and ICC 2018.

Stefano: Hello Lisandro! We might begin by outlining the main characteristics of the LA Region.

Lisandro: The LA region encompasses a large geographical area, from Mexico in the north to the very south of Argentina and Chile. With the exception of Brazil, whose official language is Portuguese, most of the other countries in the region have Spanish as their primary language.

Currently, the region is served by 25 chapters, each of them providing the interface between the local community and ComSoc. With such a structure, chapters are able to promote and organize workshops, seminars, conferences, and events, and benefit from Distinguished Lecturer Tours (DLTs) Distinguished Speaker Program (DSP).

Stefano: The Distinguished Lecturer Program (DLP) and the Distinguished Speaker Program (DSP) are particularly appreciated by our members. For personal experience, I know that in particular the LA Region is very appreciative of this program.

During my previous term as VP–Member Relations, we increased the budget allocated to these programs, to allow more and better DLTs in all regions. What is your perception of these programs? How are they organized in the LA Region?

Lisandro: Chapter chairs have been quite active with regard to DLT and DSP, in the sense that several tours are organized per semester. The outcome is much often reported as being quite important for the region.

It is important to mention that because LA is not a rich area in the globe, DLT/DSP is frequently the only means that local members have to get in direct contact with distinguished experts. As such, DLT/DSP also work as a mechanism of inclusion for members who are not able to attend ComSoc major events (e.g., ICC and GLOBECOM).

The increased budget for these programs is thus especially appreciated because it improves the potential number of speakers paying visits to LA, and as a consequence, allowing more local members to get in touch with them. Pedro Aguilera is currently the DLT & DSP coordinator for LA.

Stefano: The LA Region Board assigns awards to recognize the contributions of its outstanding members. Please describe these awards in some detail?

Lisandro: Our two main awards are the Distinguished Service Award (DSA) and the Young Professional Award (DPA). While DSA acknowledges those members with a significant contribution to the community, DPA is devoted to young professionals who already present a distinguished profile.

Candidates are indicated by their peers (self-indication is possible) to the LA Board coordinator, who puts together the Award Committee, usually composed of previous LA Board directors. The winners are announced in our social media (e.g., Facebook) and prizes are usually handed over at LATINCOM, the main communication conference in the LA region.

In 2017, the winners were: Pedro Aguilera for the Distinguished Service Award, and Carlos Lozano Garzon for the Young Professional Award. Carlos, by the way, for our term of 2018-2019, is responsible for the Awards Committee.

Stefano: What are the major challenges that you currently see in the LA Region?

Lisandro: We have three major challenges in the area. First, it is important to increase the region's membership. That is a challenge because it is not always easy to reach potential members in such a huge geographic area. The chapter chairs help a lot, but we need to find ways to increase interest, especially among students, in becoming part of ComSoc.

The second challenge is related to industry relations. There is a growing telecommunications/networking industry in LA, but the main players are not always present at ComSoc related activities. This approximation is essential for the industry to grow with the help of ComSoc.

Our last major challenge is with regard to young professionals. Today, young professionals, who are not students anymore but are not senior members either, need special care in the

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CHAPTER REPORT

IEEE ComSoc Harbin Chapter–2017 Summer Academic Month

By Weixiao Meng, Harbin ComSoc Chapter Chair, China

The IEEE ComSoc Harbin Chapter held its Summer Academic Event Month in July and August, 2017, featuring the big data and modern wireless network communication seminar. Our chapter had made adequate preparations for this academic event in advance. Chapter chair, Professor Weixiao Meng, and vice chair, Associate Professor Shuai Han organized this activity.

According to different research fields, they invited well known experts and scholars at home and abroad, and encouraged relevant members and student members to communicate with experts actively.

With the financial support of the Harbin Institute of Technology (HIT), the following domestic and foreign well known scholars accepted the invitation from the IEEE ComSoc Harbin Chapter and came to HIT to conduct academic exchanges in the summer of 2017: Prof. Xuemin (Sherman) Shen (IEEE Fellow), Professor of the Royal Canadian Academy of Science, University of Waterloo, Canada; Prof. Nei Kato (IEEE Fellow), Tohoku University, Japan; Professor Guoliang (Larry) Xue (IEEE Fellow), Arizona State University, USA; Professor Xiaohu Ge (IET Fellow) , Huazhong University of Science and Technology; Prof. Zhang Yan of the University of Oslo, Norway; Dr. Yasaka Ota and Dr. Mianxiong Dong of Japan's Muroran Institute of Technology; Prof. Lingyang Song, Peking University; Professor Qihui Wu of Nanjing University of Aeronautics and Astronautics; Professor Fengzhen Hu, Jilin University.

Professor Guoliang (Larry) Xue's lecture included two topics: "Opportunities and Challenges in Crowdsourcing and Unobservable User Authentication on Smart Devices" and "Publish or Perish: Experiences in Preparation of Paper Submissions and Paper Revisions". In the lecture, Prof. Xue discussed the crowdsourced computing theory and perception scheme and authentication mechanism based fingerprint.

Professor Xiaohu Ge's lecture was "Joint Optimization of Computation and Communication Power in Multi-user Massive MIMO Systems". He proposed a joint optimization method for computing and communication power. In order to optimize the energy efficiency of multi-user massive MIMO systems, the energy efficiency upper bound was deduced.

There were three topics for Dr. Taichi Ota lectures: "Eyes in the Dark: Distributed Scene Understanding for Disaster Management", "Optimization in Software-Defined Vehicular Ad-Hoc Networks", and "Optimization in Software-Defined Vehicular VANETs". Dr. Taichi Ota explained the problems and solutions in the disaster environment using robots for rescue. At the same time, Dr. Taichi Ota discussed the optimization problems of the Software-Defined Vehicular Ad-Hoc Network and the Software-Defined Vehicular VANETs.

Dr. Mianxiong Dong's lecture topic was "Human-Like Driving: Empirical Decision-Making System for Autonomous Vehicles". Their team had proposed a human-like driving system that would enable autopilot to have the same decision abilities as humans. The greatest advantage of the system was that the proposed method could use the real situation of the road very well and coexist with a large number of human drivers. In addition, Dr. Dong's research group also established a sensing system that requires only in-depth knowledge to avoid the use of unstable RGB data.

Prof. Xuemin (Sherman) Shen's lecture was about "Connected Vehicles for Modern Transportation Systems". Prof. Shen first introduced the connection of all car networking. Then, the challenges and scientific research directions of Vehicular Communications were given. Prof. Shen showed us how to use the car's mobility characteristics to achieve a reasonable VANET throughput, and how to develop a charging strategy based on tram mobility to improve the utility of electricity.

Prof. Nei Kato's lecture topic was "The Deep Learning Vision for Heterogeneous Network Traffic Control: Proposal, Challenges, and Future Perspective". Prof. Kato introduced the appropriate input and output characteristics of heterogeneous network transmission and proposed a deep neural network system with supervision. The signaling overhead, throughput, and latency were greatly improved.

Prof. Lingyang Song's lecturing topic was "Game Theory for Big Data Processing." Dr. Song combined optimization methods and game theory, and proposed the compromise and convergence of the design mechanism in the hierarchical structure. Analysis and simulation results showed that the proposed method could achieve layered optimization and converge at linear speed. More importantly, the convergence speed was independent of the size of the network, which indicated that the multiple-leader multiple-follower (MLMF) game based on the alternating direction method of multipliers (ADMM) could be used in very large-scale networks such as big data processing.

Prof. Qihui Wu's lecture topic was "The New Progress of Cognitive Communication System". In the lecture, Prof. Wu made a very exciting explanation about the introduction, evolution, application and future development of cognitive radio. The forward-looking report on the combination of the most advanced dynamic cognitive system and artificial intelligence had made a dynamic cognitive communication system a key technology for the effective use of spectrum resources.

The scholars also visited the HIT campus and HIT museum. They showed great interest in the history of the development of HIT. The academic achievements on aerospace research also won high praise from the guests.

The Summer Academic Event organized by the IEEE Com-

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Photo of IEEE ComSoc Harbin Chapter members and experts.

CHAPTER REPORT

IEEE ComSoc Lahore Chapter Celebrated World Telecom Day 2018 in Pakistan

By Kashif Bashir, IEEE Comsoc Lahore Chapter Chair, Pakistan

The IEEE ComSoc Lahore chapter, KICS UET Lahore, and the IEEE Punjab University student branch organized World Telecom Day on 16 May 2018. The event, held in the Seminar Hall of the Faculty of Engineering and Technology, University of Punjab, was attended by many high officials and experts from academia and industry. Among the speakers were: Mr. Kashif Bashir, Chair of the IEEE ComSoc Lahore chapter; Prof. Dr. Taqi Zahid Butt, Dean of the Faculty of Engineering and Technology, University of Punjab; Dr. Amjad Hussain, Chair of the IEEE Lahore Section; Dr. Vincenzo Piuri, Professor at the University of Milan, Italy; Dr. Bhawani Shankar, former chair of the IEEE Karachi Section; Dr. Momin Uppal, Lahore University of Management Sciences (LUMS) Lahore; Dr. Syed Atif Mehdi from the University of Central Punjab (UCP) Lahore; Mr. Hassan Ali, Senior Manager, Mobilink Pakistan; Muhammad Javed Aslam, Executive Vice President-Technical, Pakistan Telecommunication Company Limited (PTCL); Dr. Sheikh Faisal, KICS, UET Lahore; Mr. Moosa Nadeem, Director, Huawei Technologies, Pakistan; Mr. Jawad Khalid Mirza, Divisional Head, Information Security & Governance, Allied Bank, Pakistan; and Dr. Ubaid Ullah Fayyaz from KICS, UET Lahore..

The purpose of WTD was to highlight the importance of communications in our lives. The theme of this day was "Enabling the positive use of Artificial Intelligence for all". The event began with a video message by Prof. Dr. Vincenzo Piuri, who is a full professor at the University of Milan, Italy. He emphasized the importance of telecommunications in today's world. He also spoke about how we can serve humanity through better ICT technology. He thanked the organizers for conducting the World Telecom Day 2018.

A celebration cake was cut at the conclusion of World Telecom Day 2018.

Prof. Dr. Bhawani Shankar, former chair, IEEE Karachi Section, in his video message spoke about the achievements of the IEEE ComSoc Lahore Chapter. He spoke about the history and importance of telecommunications day.

Prof. Dr. Taqi Zahid Butt, Dean of the Faculty of Engineering and Technology, University of the Punjab, spoke about the history of telecom and the advancement in the telecommunications field. He shared his interesting and valuable personal experiences about the revolution of the mobile technology and telecommunication industry.

Mr. Kashif Bashir explained the history of world telecom day and showed glimpses of last year's event through a video. He spoke about the ComSoc Lahore Chapter's activities. and how world telecom day is helping the industry and academia. He also spoke about artificial intelligence and its significance in our future.

Dr. Momin Uppal from LUMS spoke about the use of artificial intelligence and machine learning in wireless networks, Internet of Things, mobile edge caching and computing, and UAVs for wireless communication.

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CHAPTER REPORT

Snapshots from the IEEE ComSoc San Diego Chapter

By Liangping Ma, San Diego Chapter Chair, InterDigital Inc., San Diego, CA, USA

The IEEE ComSoc San Diego chapter has been active in promoting and serving the local communications community. San Diego has long been an innovation hub of the wireless industry. Notably, CDMA, the core technology of the second-generation IS-95 standards and the third-generation (3G) broadband standards, was first publicly demonstrated by Qualcomm in San Diego on November 7, 1989. Initiated by the IEEE San Diego Section, this public demonstration was approved by IEEE as an IEEE Milestone, a significant technical achievement highly honored by IEEE. On November 7, 2017, 28 years after the demonstration, IEEE celebrated this historical event with Qualcomm,

Panelists on the 5G commercialization panel at the IEEE Smart Tech San Diego conference: Dr. Durga Malladi, SVP of Qualcomm (first from right), Dr. James Gilb, Principal Engineer of General Atomics, and Dr. Pranav Dayal, Principal Engineer of Samsung. Panelist Dr. Byung K. Yi, CTO of InterDigital, and moderator Dr. Liangping Ma were not shown here.

Qualcomm co-founder Dr. Irwin Jacobs (first from right), Qualcomm co-founder Dr. Andrew Viterbi (second from left), San Diego Mayor Kevin Faulconer (second from right) and IEEE Region 6 Director Dr. Kathleen Kramer (first from left) in front of the milestone plaque on the Qualcomm campus in San Diego. (Photo courtesy of Tim Lee.)

IEEE members and the city of San Diego. A bronze plaque was permanently placed on the Qualcomm campus in San Diego.

San Diego has maintained its leadership in wireless innovation throughout the years, and it is the home of many professionals who work in the wireless industry. To help IEEE members and working professionals keep up with the latest advances in wireless and other technologies, on December 8, 2017, the IEEE San Diego Section held a conference, IEEE Smart Tech San Diego, which featured a variety of panel discussions covering not only wireless, but also big data, robotics, smart cities, Internet of Things (IoT), genomics, and intellectual properties. The ComSoc chapter organized a panel discussion on the commercialization of the fifth generation (5G) cellular systems, covering the key tech-

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transition between university and market. We believe ComSoc can help with that a lot.

Fortunately, these three challenges can be properly faced by our LA Board members. In particular, I would like to mention Nury Gabriela Ramirez Cely, who is in charge of industry relations; Juan David Alvarado, who is in charge of membership development; and Gidy Carolina Florez Navarro, who is responsible for the young professionals.

Stefano: Besides those LA Board members you have mentioned already, would you like to acknowledge the contribution of others in particular?

Lisandro: I would like to additionally mention the following people from the LA Board: Carlos Martinez is in charge of the LA Global Communications Newsletter Committee; Joel Rodrigues is our Technical Activities coordinator; Araceli García Gómez is responsible for Student Activities; and Esmeralda Asurza is in charge of Social Networks and the Webpage, an activity especially important not only to advertise our actions in the region, but also to connect with a generation of young researchers for whom social media is their main form of communication. Finally, I would like to recognize the great work that Carol Cronin, from the ComSoc headquarers staff, develops together with region directors!

Stefano: Among the many activities that you are running, what will be the highlight next year?

Lisandro: All activities are obviously important for the development of our region. Still, if I have to pick one, I would say that our Board would be very proud if the number and involvement of young, energized people increases. Getting them involved is important for the moment due to the reasons I mentioned above, but also because young people will be the leaders of tomorrow, so we must bring them into the ComSoc community as earlier as possible.

HARBIN CHAPTER/*Continued from page 2*

Soc Harbin Chapter attracted a large number of members and students. During the two months, the experts gave lectures on advanced theoretical knowledge in a serious and vivid manner. They discussed actively and answered various questions raised by members and students patiently. Through this activity, we strengthened the links among the IEEE ComSoc Harbin Chapter, HIT, and universities at home and abroad in relevant areas such as ultra-dense networking, 5G technologies, communications and computers, which broadened our horizons and improved our research capabilities to a large extent.

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STEFANO BREGNI
Editor-in-Chief
Politecnico di Milano, Italy
Email: bregni@elet.polimi.it, s.bregni@ieee.org

FABRIZIO GRANELLI
Associate Editor
University of Trento, Italy
Email: fabrizio.granelli@unitn.it

IEEE COMMUNICATIONS SOCIETY – MEMBER AND GLOBAL ACTIVITIES
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OCTAVIA DOBRE, DIRECTOR OF SISTER AND RELATED SOCIETIES

REGIONAL CORRESPONDENTS WHO CONTRIBUTED TO THIS ISSUE
EWELL TAN, SINGAPORE (ewell.tan@ieee.org)

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Dr. Syed Atif Mehdi from the University of Central Punjab spoke about the use of robotics in agriculture, and about the detection of fungus through artificially intelligent robots. He also spoke about progressive farmers,and shared his work on agro robotics and the use of drones for agriculture.

Eng. Hassan Ali from Mobilink Pakistan spoke about ARPU (average revenue per person) concepts being practiced at Mobilink. He also shared the plans of his company for the implementation of 5G.

Mr. Muhammad Javed Aslam, Executive Vice President Technical, PTCL, explained how PTCL is working on artificial intelligence with smart features, and the future of PTCL in Pakistan. He also shared the long history of his company. He encouraged students to study and do research in telecommunication, big data and artificial intelligence.

Dr. Shiekh Faisal from KICS UET Lahore spoke about machine learning, big data analytics, native language processing, tools for machine learning, traditional vs. big data, big data vendors, data analytics, and how artificial intelligence meets IoT.

Mr. Moosa Nadeem from Huawei gave a brief introduction of Huawei and spoke about historical milestones of Huawei in Pakistan. He also spoke about the vision and mission of the company, and about artificial intelligence technologies used in the Lahore safe city project.

Mr. Jawad Khalid Mirza spoke about the importance of cyber security, machine learning and artificial intelligence in the banking sector of Pakistan.

Dr. Amjad Hussain, Chair of the IEEE Lahore Section, gave the keynote of the event. He shared his personal experiences about the evolution of communications.

Dr. Ubaid Ullah Fayyaz from KICS-UET gave the closing keynote. He also thanked all guests and members of IEEE who attended this event.

A post panel discussion followed in which the distinguished speakers discussed their views on the impact of telecommunications today. The event concluded with the distribution of souvenirs and lapel pins by the Chair of the IEEE ComSoc Lahore Chapter. A celebration cake was also cut.

SAN DIEGO CHAPTER/*Continued from page 3*

nologies, the status of the standards, deployment, the ecosystem, and the impact of the recent change in FCC policies.

The desire and demands to learn the new 5G technology certainly go beyond San Diego! To help IEEE members elsewhere understand the rapid advances of 5G technology and standards, as an IEEE ComSoc Distinguished Lecturer (DL), I travelled to the Los Angeles and San Francisco areas in June and July 2017, respectively, to give a series of talks on 5G. It was great to hear and answer so many questions from the enthusiastic audience, some of which were amazingly insightful.

The IEEE ComSoc San Diego chapter has done an outstanding job in fulfilling its mission to serve working professionals. This would not have been possible without the coordination from the IEEE San Diego section, sister ComSoc chapters, and the valuable time and effort invested by many volunteers. Working together, we can help our community grow.