GCN GLOBAL COMMUNICATIONS NEWSLETTER

North America Region
Interview with Fawzi Behmann, Director of NA Region

by Stefano Bregni, Global Communications Newsletter Editor-in-Chief, Director Conference Operations, and Fawzi Behmann, NA Regional Director
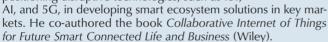
This article continues the series of nine interviews to the Officers of the IEEE ComSoc Member and Global Activities (MGA) Council, which is published every month In the *Global Communications Newsletter*.

In this series of articles, I introduce the Vice-President and the six Directors on the MGA Council (namely: Member Services, Industry Outreach, and AP, NA, LA, EMEA Regions), as well as the two Chairs of the Women in Communications Engineering (WICE) and Young Professionals (YP) Standing Committees. In each interview, one by one they present their sector activities and plans.

In this issue, I interview Fawzi Behmann, IEEE ComSoc NA Region Director.

Fawzi Behmann is the founder and president of TelNet Management Consulting Inc. in Austin, Texas since 2009. He has held a variety of leadership positions in the areas of communications and networking, and specializes in positioning disruptive technologies, such as IoT, AI, and 5G, in developing smart ecosystem solutions in key markets. He co-authored the book *Collaborative Internet of Things for Future Smart Connected Life and Business* (Wiley).

Fawzi is a Senior Member of IEEE, a ComSoc Distinguished Lecturer, and he is on the IEEE ComSoc Board of Governors as Regional Director for North America (2020–2021, 2022–2023). He is or has been a voting member of the IEEE Conferences Committee (2022–2023), General Chair of IEEE WCNC 2022, Chair of the Smart City Summit (2019), and Genentech of Smart Cities (2018) and Advanced Technologies in Healthcare (2017). Fawzi is Chair of several joint Chapters and co-chair of the IEEE SA Interdisciplinary Framework and a contributor to the IEEE Future Networks Initiatives.

Stefano: Hello Fawzi! Would you like to begin by introducing the North America Region to our readers? What are the main challenges? What are the most important activities that are run in the North America Region in these two years under your leadership as NA Director?

In North America, we currently have 95 chapters over 7 regions R1–R7 representing close of 1/3 of ComSoc membership. This brings opportunity for sustainable growth. Key areas focus are:

- Improve value and services to our members (working in industry and/or academia).
- * Engage with industry through conferences, technical webinars and educational series, articles, and this newsletter.
- Explore industry engagement with Bell Labs adding value to our products and services.
- Student leadership conference outreach, ComSoc school series, student elevation campaign, special focus on stu-
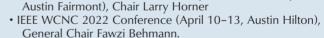
dents with specific initiatives, and collaboration with the respective sections.
- Engage in mentoring trial/pilot creating mentoring opportunities and continue with recognition of our members. During the period January–July 2022, there were over 140 events (technical presentations, seminars, workshops, others) that were held, hosted. supported by 442 chapters.
- Empower Chapters identifying their funding needs, recognition of exception achievement by applying for ComSoc chapter achievement and NAB exceptional services awards, sharing ideas of best practices, draw support from standing communities on specific initiatives, collaboration with other chapters, and explore the sister/partner approach matching successful Chapters with ones who need help, creation of a Chapter community for discussion and interaction, and overall support from regional reps to get results.

Stefano: This year, the ComSoc volunteers of the Austin Chapter, your Chapter, have organized one ofthe most important ComSoc conferences: the IEEE Wireless Communications and Networking Conference 2022 (WCNC 2022). Would you please present it and share some details?

The NA Region had the opportunity to organize and host two conferences in Austin, TX in 2022:
- Student Leadership Conference (April 9, Austin Fairmont), Chair Larry Horner
- IEEE WCNC 2022 Conference (April 10–13, Austin Hilton), General Chair Fawzi Behmann.

Student Leadership Conference
Nearly 70 registered students attended from 12 universities and 5 nations. Many students commented on how much they learned and appreciated the opportunity. Thanks to the Organizing Committee chaired by Larry Horner, including ComSoc staff and volunteers.

IEEE WCNC 2022 Conference
This 23rd International Wireless Communications Networking Conference (WCNC) was held in Austin for the first time. It was held in a hybrid format, with 832 in attendance, over 50 percent virtual. The theme of the conference was "Boosting Verticals into Wireless Orbit." It was a 4-day event starting with a Tutorial & Workshop on Day 1 followed by 3 days of a multi-track conference that included technical paper presentations, industry panels, keynote speakers, exhibits, and many networking opportunities.

The program included a compelling technical and industry program with 361 papers, 12 tutorials and 11 workshops, 9 keynote speakers, 12 industry panels, 2 executive forums, dialogue with industry leaders, a startup forum, 7 industry presentations, 11 Platinum, Gold, Silver, and Bronze, and a hybrid platform for physical/virtual exhibits. The conference covered the most exciting topics in wireless communications and networking.

Social and networking activities included a welcoming reception, wine and cheese, and an appreciation dinner and conference banquet preceded by a jazz networking hour.

Stefano Bregni

Fawzi Behmann

The Plenary session included participation by the Mayor of Austin and ComSoc President Sherman Shen.

Special thanks go to the Organizing Committee members for their diligent and passionate work and support form IEEE Communications Society staff and volunteers from various universities and local industries.

Stefano: The Distinguished Lecturer Program is one of most appreciated programs of ComSoc. The NA Region has a tradition of DL tours. With the pandemic, many tours were organized virtually using teleconference platforms. Would you please tell us more?

Fawzi: At the beginning of the pandemic, the NA region took the lead and worked with ComSoc and other regional directors defining the VDL program, process, and details, and training that enabled launching the VDL program in Q2 2020. Today, the program has been scaled to accommodate 51 DsL, each offering multiple topical areas made available to over 220 Chapters worldwide. Currently, the NA region serves 95 Chapters, and it was important to expand the support to Chapter Chairs by assigning four VDL area coordinators for R1–R7. This was announced and became fully operational at the beginning of 2022.

Several steps were added to simplify, enrich, and launch VDL sessions using resources such as multiple topical offerings offered by DLs and a request form to be filled by Chapter Chairs. The VDL event date is then defined in vtools and used for promotion/registration and tracking. Zoom and WebEx are used to execute the event, and post-event feedback is typically issued. These VDL events are leveraging a multi-host feature (built into vtools), allowing the primary Chapter Chair to accommodate other Chapters to host and promote the event. This allowed in some cases having 30 Chapters co-host a VDL event — saving energy for the DL to make one presentation, bringing in diverse Chapters to interact with the DL via a Q&A period. Typically, recording is enabled and slides are made available. For the period of January–July 2022, there were 16 VDL events supported by 80 chapters (16 prime hosts and 64 co-hosts).

As the health situation with COVID-19 improves, we are encouraging DL Tours. We do see VDL continuing for some time. The concepts of VDL and DLT are similar. The concept of co-hosting in VDL is similar to DLT in taking responsibility and hosting the DL in their cities.

One key variation is that the DL travels physically from one city to the next with coordination of hosting chapters and VDL/DLT coordinators. Financially, each Chapter will have their share in covering expenses hosting the DL in their city, and ComSoc will cover the overall travel expense to cities. Finally, DLTs allow much more face-to-face interaction and networking with the DL.

Stefano: Any more activities and initiatives in the NA Region that you would like to present to our readers?

Fawzi: I can mention a few of them.

Chapter Health Check and Enhanced NA Regional Website
Chapter Health Check, introduced to the NA region two years ago, identifies a variety of activities and initiatives that Chapters can create and strive to deliver greater value to their Chapters and community. Regional reps use Trello to track and follow up on health check activities. We are adding access and training to Chapter Chairs as well Standing Committee leaders.

A NAB enhanced website provides a platform for sharing regional highlights, news, activities, outstanding accomplishments, as well as integrating all 95 Chapters' vtools-based activities. For example, one can navigate, view past, present, and planned events, sign up for any event, enable collaboration among Chapters (e.g. with a simple message, a chapter chair can engage with another chapter to participate or co-host an event).

Fostering Relationship with IEEE-HKN
In 2022, ComSoc had an opportunity to co-sponsor the IEEE-HKN Experience Conference in June 2022. NAR director and DL Fawzi Behmann was invited to present to graduating students on June 10 an encouraging/inspiring message of unleashed opportunities for graduating students under the title "The Future of Smart Ecosystem Empowered by IoT Collaborative Technologies." The session was interactive and lasted for two hours. This initiative will open the door for interaction between HKN and ComSoc Student Chapters.

NAB Chapter Survey
NAB has formed a committee to prepare, issue surveys, and collect feedback from Chapter Chairs, regional reps, and Standing Committee members regarding their plans, aspirations, and needs for the coming months. The survey will help us to check the pulse of chapters and their needs and for the NAB to explore introducing and discussing other opportunities such as career fairs, STEM, GCN, ComSoc 2023 School Series, and training (Trello, Chapter website, social media), regional roster and record management, and others.

The survey was issued late June/early July with tactical plan (mini RCCC) addressing immediate needs.

Regional Efforts/ComSoc
As NAB collaborated at the Global CCC event (called MVRC — Membership Value Research Congress) in 2021, our plan is to re-engage with GCCC as a community focused activities in Q4 of 2022.

Stefano: Any more remarks you wish to make?

I take this opportunity to thank NAB Leadership team for their hard work and teamwork, other regional directors, MGA Council, and Members Service Board for their leadership and guidance, and ComSoc staff for their dedicated support.

Group photo at WCNC 2022: the Mayor of Austin and President of IEEE ComSoc, Leaders of WCNC 2022 and WCNC Steering committee members. Left to Right: Peying Zhu, Luis M. Correia, Brian Modoff, Ali Ghrayeb, Mayor Steve Adler, Fawzi Behmann, Sherman Shen, Jeff Andrews, David J. Love and Carles Anton

Latin America's ComSoc Chapters Commemorate the International Day of Girls in ICT

by Yessica Sáez, Universidad Tecnológica de Panamá, IEEE ComSoc Panama Chapter Chair, and Esmeralda Asurza, IEEE ComSoc Peru Chapter Chair

The International Day of Girls in ICT is an initiative of the International Telecommunication Union (ITU) that aims to raise global awareness of the importance of promoting studies and careers in ICT for girls and young women. Every year, on the fourth Thursday of April, the Girls in ICT Day is celebrated in more than 150 countries around the world.

For girls and young women to thrive in science, technology, engineering, and mathematics (STEM) careers, they need safe and reliable access to the Internet and digital tools. That is why, in consultation with young people, the ITU identified "Access and Security" as the slogan for girls in ICT 2022.

During April 2022, the ComSoc Panama and ComSoc Peru Chapters celebrated girls and young women through motivational messages, photo contests, conferences, and discussion panels, encouraging them to pursue studies and careers in the ICT sector.

Yessica Sáez, ComSoc Panama Chapter Chair, participated in several discussion panels and conferences related to girls in ICT. On April 19, Mrs. Sáez spoke with *Ciencia en Panamá* about the contributions of women in ICT through history. On April 21, she spoke with the Panama Chapter of the Internet Society about the International Day of Girls in ICT and the importance of promoting careers and professions in technology among women and girls.

The Comsoc Panama Chapter was also invited to participate as specialists in the *+Terclass* project, an initiative of *+Móvil and Fundación Cable & Wireless Panamá*, to give a virtual class about ICT aimed at high school students of the San José de Malambo School in Arraiján, Panamá.

On April 29, the ComSoc Panama Chapter hosted a Virtual Distinguished Lecture, "*Communication, computation, and privacy trade-off in machine learning for smart environments,*" with Dr. Damla Turgut, a Charles Millican Professor of Computer Science at the University of Central Florida and IEEE ComSoc Distinguished Lecturer.

The IEEE ComSoc Peru Chapter also organized several activities during April to conmemorate International Girls in ICT Day. The discussion panel *For more girls in ICT* took place on Thursday, April 28, and was led by Helga Medina, WICE coordinator of the ComSoc Peru Chapter. This activity aimed to share experiences of the panelists in relation to their work as promoters in the development of girls in STEM education, as well as solutions to promote access and security in our society so that girls can safely access the digital environment.

The photography contest, "*Niñas en TICs,*" had the purpose of promoting and celebrating the different roles of girls and women in STEM through the publication of photographs via social networks.Three categories were considered: Girls, Students (undergraduate), and Professionals. The winners of the Student and Professional categories received annual IEEE and ComSoc memberships. The winner of the Girl category received a book, *The Future Is Feminine*, which has inspiring stories about the situations that girls and women face on a daily basis, showing how their protagonists transform them to empower themselves. More details about this panel are here: https://peru.chapters.comsoc.org/2022/04/30/conversatorio-por-mas-ninas-en-las-ticsc/

See the winners of the contest here: https://peru.chapters.comsoc.org/2022/04/30/ganadoras-del-concurso-de-fotografia-ninas-en-tics-segunda-edicion/

Flyers of the events where Yessica Sáez, ComSoc Panama Chapter Chair, participated.

Dr. Yessica Sáez talking about ICT to San José de Malambo School high school students

Flyer for the discussion panel "For more girls in ICT"

Activities of the IEEE ComSoc Sri Lanka Chapter in 2021

by Shechem Sumanthiran, IEEE ComSoC Sri Lanka Chapter Chair

Although the year 2021 was an unusually stagnant year for many due to COVID-19, the IEEE ComSoc Sri Lanka Chapter had a year filled with growth and development. The Sri Lanka Chapter was able to host multiple online and in-person events, and significantly able to extend its membership base by initiating two new Student Chapters at the University of Peradeniya and the University of Ruhuna.

The year began with the ComSoc SL Tech Meetup 4.0 and a virtual distinguished lecture conducted by Dr. Giovanni Geraci of Pompeu Fabra University, Spain, on the topic "IEEE 802.11be: Wi-Fi Strikes Again." This was the first event of the year and was held on 20 January, 2021. Continuing the wireless communications theme, a virtual distinguished lecture on the topic "AI-Enabled Wireless Networks: A Bridge from 5G to 6G" was conducted by Dr. Melike Erol-Kantarci, University of Ottawa, Canada.

The talk, organized in collaboration with the IEEE ComSoc Student Branch Chapter of the University of Moratuwa, Sri Lanka, discussed the challenging performance and reliability requirements of 6G and the potential of machine learning to learn environment parameters under varying behavior of the wireless channel to meet these stringent requirements. The virtual distinguished lecture was held on 8 April, 2021 and was well attended.

The latter part of the year saw the Sri Lanka Chapter hosting three more events. The first of these, held on 25 October, 2021 was another virtual distinguished lecture conducted by Prof. Sudip Misra of the Indian Institute of Technology Kharagpur. This was on the topic "IoT in e-Health: From Wearables to Diagnostic Systems" and covered the state of the art in the e-Health domain and its evolution with the introduction of wearables and diagnostics systems. This virtual distinguished lecture was organized in collaboration with the IEEE ComSoc Student Branch Chapters of the University of Moratuwa and the University of Peradeniya. The talk was well attended by the student members of both these student branches, as well as the membership of the Sri Lanka Chapter.

No more than two weeks later, another well attended guest lecture was organized in collaboration with the student branch chapter of the University of Moratuwa, Sri Lanka. This talk was conducted by Dr. Rajarajan Sivaraj, Director for RIC architecture and O-RAN standards at Mavenir, Texas. As per his area of work, he delivered a guest lecture on the topic of building O-RAN-architected end-to-end intelligence in a 5G (and beyond) cellular mobile network. The talk covered how intelligence from the radio access network (RAN) facilitated by the Open RAN (O-RAN)-architected RAN intelligence controller (RIC) can be interfaced with a network edge cloud platform with containerized micro-services for higher-layer IP/application layer optimization by leveraging O-RAN standards. The lecture also covered how end-to-end intelligence will be useful in meeting the complex demands of next-generation mobile apps such as AR/VR, self-driving cars, etc. The wide variety of practical applications of the technology was especially useful to demonstrate the value of the ORAN architecture.

The final learning event held in 2021 was on 6 December. This was a guest talk on the topic "Signal Processing for MIMO-Enabled Terahertz Communications," conducted by Dr. Hadi Sarieddeen, a postdoctoral research fellow with the Computer, Electrical and Mathematical Sciences and Engineering (CEMSE) Division, King Abdullah University of Science and Technology, Saudi Arabia. The event was organized in collaboration with three student branch chapters, namely University of Moratuwa, University of Peradeniya, and University of Ruhuna. The event was an excellent opportunity for the members of the student branch chapters from all three universities to work together and get to know each other. Additionally, the talk itself was extremely insightful, discussing the prospects of ultra-massive multiple-input multiple-output (UM-MIMO) technology to overcome the THz band's communication distance limitations. The talk outlined a three-step approach for THz UM-MIMO signal processing, consisting of modeling THz-specific channel properties, designing efficient algorithms, and observing terabit-per-second baseband limitations.

2021 contained two important milestones for the IEEE ComSoc Sri Lanka Chapter in membership development. We were able to initiate ComSoc Student Branch Chapters at two major universities in the island. The Student Branch Chapter of the University of Ruhuna obtained approval on 23 October 2021. The inaugural AGM was later held on 6 January 2022. The Student Branch Chapter of the University of Peradeniya was initiated on 1 November 2021. The first AGM was later held on 20 February 2022.

The initiation of these two student branches, in addition to the existing student branch of the University of Moratuwa, are significant in the membership development of the IEEE ComSoc Sri Lanka Chapter. The AGM of the Student Branch Chapter of the University of Moratuwa was held on 11 October 2021. Additionally, members of the student branches of the University of Moratuwa and the University of Peradeniya entered the IEEE ComSoc "Internet for All" Competition, held in December, and won two awards in the APAC Region, second place and an honorary mention award. We congratulate our student members for these outstanding achievements.

From 7 to 9 December, the former Chair of the Sri Lanka Chapter, Dr. Tharaka Samarasinghe, had the opportunity to attend the Membership Value Research Conference held in Madrid, Spain. The conference helped participants to identify product successes, improvements, and gaps for different types of chapter members such as students, young professionals, non-members, and industry professionals.

The AGM of the Sri Lanka Chapter was held on 21 December. Our gratitude to the Chair for 2021, Dr. Tharaka Samarasinghe, and the Executive Committee for their efforts toward the growth and development of the IEEE ComSoc Sri Lanka Chapter.

Some speakers who gave talks at Sri Lanka Chapter in 2021 (from left to right): Sudip Misra, Melike Erol-Kantarci, Hadi Sarieddeen, Giovanni Geraci.

IEEE Communication Society Meet-and-Greet Event

by Umair Ahmed Korai, MUET, IEEE Communication Society Karachi Section Chapter Secretary, Moiz Rahman Memon, LUMHS, IEEE Karachi Section Treasurer, Pakistan

IEEE Communication Society (ComSoc) Mehran University of Engineering and Technology (MUET) Student Branch Chapter in collaboration with IEEE ComSoc Karachi Chapter and QS World Merit Pakistan organized an IEEE ComSoc Meet-and-Greet event on March 24, 2022, at the Department of Telecommunication Engineering, MUET, Jamshoro.

The objective of this event was networking of all IEEE and IEEE ComSoc members with each other. The total registered participants were 34; all were IEEE members. Treasurer IEEE Karachi Section and Broadcast Engineer at LUMHS FM Radio, Engr. Moiz Rahman Memon, attended the event as a Chief Guest. The event was formally started with the welcome address by Ms. Dania Abbasi, Vice Chair IEEE ComSoc MUET Student Chapter and a third-year student at MUET. She welcomed the Chief Guest, the Coordinators, the Organizers, and the Participants. Afterward, Engr. Moiz delivered an interactive talk on leadership skills, shared with students his knowledge and experience about leadership, and gave some important lessons to the students to practice in the life ahead of them. The students also participated in the discussion and shared their thoughts on the concept of leadership. Engr. Moiz also appreciated the efforts of the organizers and shared the useful benefits of joining the IEEE Communications Society. As he was one of the IEEE ComSoc student members during his undergraduate studies, he also shared his experience with IEEE ComSoc along with some sweet memories with the participants.

A few ice breaking games and activities were also organized such that the attendees could interact with each other. A few general knowledge questions were also asked to encourage fun learning. This event lasted for about 2 hours, and it was not only informative but also a lot of fun for the participants.

Finally, Secretary of the IEEE ComSoc MUET Student Chapter, Mr. Mohsin Memon (second year student at MUET), gave the concluding remarks and vote of thanks to the Chief Guest, event organizers, collaborators, volunteers, and participants, followed by certificate distribution and a pizza party.

Students communicating and providing their own take on the topic with the guest speaker and chief guest, Engr. Moiz Rahman Memon.