



April 2019

ISSN 2374-1082

INTERVIEW

WICE: Promoting the Role of Women in Communications Engineering

Interview with Ana García Armada, Chair of the WICE Standing Committee

By Stefano Bregni, Global Communications Newsletter Editor in Chief, Vice-President for Conferences, and Ana García Armada, Chair of WICE Standing Committee

This is the sixth 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.

In this issue, I interview Ana García Armada, Chair of the IEEE ComSoc Standing Committee on Women in Communications Engineering (WICE).

Ana received her Ph.D. degree in electrical engineering from the Polytechnical University of Madrid in February 1998. She is currently a Professor at University Carlos III of Madrid, Spain, where she is leading the Communications Research Group. She has been a visiting scholar at Stanford University, Bell Labs and the University of Southampton. She has coordinated more than 40 national and international research projects as well as 20 contracts with industry. She has published approximately 150 papers in international journals and conference proceedings and she holds four patents. She has served on the TPC of more than 40 conferences and she has been/is part of the organizing committee of IEEE Globecom 2019 and 2021, IEEE Vehicular Technology Conference (VTC) Spring 2019, Fall 2018, and Spring 2018, among others.

Stefano: Hello Ana! This is the third time I have the opportunity to interview the Chair of the IEEE ComSoc WICE Standing Committee. The first time was back in 2015, when I interviewed Octavia Dobre during her first term as WICE Chair.

I am very glad I again have this chance. True equal opportunities for women in our field of engineering is one of the five strategic directions I established in ComSoc Member and Global Activities, since my first term as Vice-President for MGA in 2014. Therefore, it is really a pleasure for me to offer you this page to present your plans and the activities of the WICE Committee.

So, Ana, would you share with us how did you get involved in the WICE Committee before being appointed Chair?

Ana: Hello Stefano! It is my pleasure too. I was Secretary of the IEEE ComSoc Women in Communications Engineering (WICE) Standing Committee (2016-2017), working with Prof.

Octavia Dobre as Chair and contributing to organizing WICE activities and making them more visible. Then, I became aware of the important role of WICE in ComSoc and I was greatly honored to continue as Chair of this committee (since 2018).

Stefano: What is the mission of WICE? On what kind of activities does it focus? What are its most significant initiatives that you would like to recall?

Ana: The mission of WICE is to promote the visibility of women in Communications Engineering and to create venues for networking and mentoring, contributing to their professional growth.

Our main activities are therefore workshops, panels and special sessions that we organize in conjunction with some of the conferences sponsored by IEEE ComSoc. Besides that, WICE sponsors the Child Care program for attendees of ICC and GLOBECOM, and awards student travel grants to young females who would like to learn while helping organizing WICE events in these major conferences. We also offer yearly awards to recognize the outstanding research, mentoring and service of WICE members.

Stefano: I am very happy that you mentioned the Child Care Grant program! It was launched when I was VP MGA. As you know well, as you were actively involved in it since its early trial, we had to push strongly and spend a considerable effort to make it a reality, solving non-trivial practical and legal issues. Now, it is a permanent program in ComSoc MGA. I believe it's been quite an achievement for all us.

Ana: Indeed, I believe it is quite a success that we now offer grants on a regular basis for ICC and GLOBECOM attendees who are IEEE ComSoc members and who are bringing small children to the conference or who incur extra expenses in leaving their children at home. Preference is given to students, recent graduates, or new entrants to the communications field who are presenting at the conference. Our goal now is to make these grants well known and more widely used. Recently, we identified as an important step for improvement to announce them as early as possible for each conference.

Stefano: More in detail, what events were organized by WICE most recently?

Ana: Creating opportunities for discussion, exchange of best practices and networking is very important to achieve our goals, where the young female Communication engineers find some role models and make connections with more senior members that will help them develop in their profession.

This year, we organized a professional development workshop together with N2Women at the International Conference on Communications (ICC) in Kansas City, USA. We also participated in a panel at the Women In Engineering International Leadership Summit WIE-ILS (Tunisia) about "Social Innovation and Entrepreneurship: Changing Local Communities and Beyond."

We organized a special session and doctoral colloquium at the International Conference on Nanoscale Computing and Communication (NanoCom), in Reykjavik, Iceland, with a panel about "Trends in Communications and Navigating Your Career."

(Continued on Newsletter page 4)



Stefano Bregni



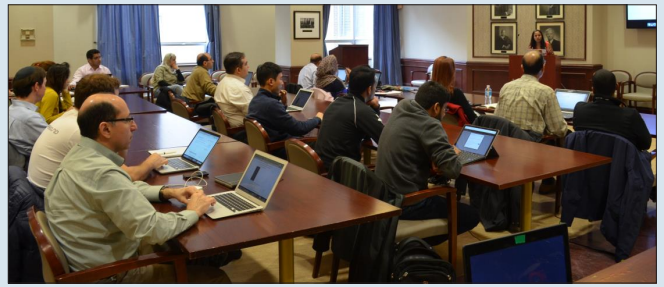
Ana García Armada

IEEE ComSoc Toronto Chapter Winner of the 2018 Chapter Achievement Award

By Eman Hammad, Toronto Chapter Chair, Canada

Toronto is one of the largest and busiest cities in North America that continues to grow. The city is home to some of the best universities in Canada and world-class researchers in many fields, including the godfather of machine learning and neural networks: Geoffrey Hinton. Toronto is increasingly featured as a target for technology investments and technical talent recruitment. The technical skills and industrial diversity in Toronto challenges us every year at the chapter to design and present programs that bring value to the general membership. The University of Toronto is one of the main hubs for the Communication Society Chapter activities due to its strategic location, its active membership and the support of the Electrical and Computer Engineering Department and faculty. The Chapter continues to work closely with Ryerson University and our amazing supporter Prof. Xavier Fernando (previous Chapter Chair).

The Toronto Communication Society Chapter vision is focused on establishing venues for its membership's continuous development and on promoting connections between academic and industrial professionals. To help realize this vision



The IBM IoT Watson platform workshop.

we collaborated with other chapters and committees including the Toronto Industrial Relations committee led by Hugo Sanchez-Reategui at the time (2017-2018) and the Ryerson University Student branch. Further, the chapter had strong support from the IEEE Toronto leadership team and collaborated with neighboring Communication Society Chapters in the region.

The chapter's activities can be grouped into four categories: technical seminars and distinguished lectures, hands-on workshops and tutorials, socials, and industrial facility tours. To help cover the expenses of the different activities, the chapter applied to and received the Communication Society membership development grant. This is in addition to the chapter base funding received from the Communication Society, the

(Continued on Newsletter page 4)

IEEE ComSoc Bolivia Chapter Winner of the 2018 Chapter Achievement Award

By Sandra Hidalgo, Bolivia Chapter Chair

The ComSoc Bolivia Chapter feels highly honored receiving this award without purposely pursuing it. We started by creating a team that worked toward our 2017 goals. Among the most important ones were:

- Spreading ComSoc information across industry and academia.
- Strengthening and supporting the creation of new student chapters.
- Technical training for professionals and students.
- Membership development.

Training sessions were set up to fulfill these objectives. In two cases, out of a total of six, we organized events taking advantage of the ComSoc Distinguished Lecturer Program (DLP) for chapters.

In 2017, two DLTs took place in different cities: Cochabamba and La Paz. Making use of the DLP constituted a significant benefit for our Chapter by creating closer links to telecom operators, universities and other technology related entities. It was definitely a ComSoc seeds planting year in order to become widely known in our society as a leading-edge technology organization.

We are deeply thankful to the lecturers who visited us, not only because of their kindness, but also for sharing their pro-



Rose Hu, IEEE ComSoc Distinguished Lecturer, with Bolivia Chapter volunteers.

found technical knowledge, and motivating with their life experience active participation of professionals and students who were not ComSoc members. In our events, we also invite distinguished Bolivian professionals as lecturers. Their participation actively demonstrates our national expertise and capabilities. They are probably not well recognized and their inclusion provides other opportunities for our Chapter.

The DLT lecturers who visited us are:

- Ph.D. Song Guo, Hong Kong Polytechnic University, China (August 2017, La Paz): Cross-Cloud Resource Management for Big Data y Device-to-Device Communication in Cellular Networks.
- Ph.D. Rose Hu, University of Utah, USA (November 2017, Cochabamba): Key Wireless Access Technologies in 5G and IoT Systems y Downlink and Uplink Non-Orthogonal Multiple Access in a Dense Wireless Network.

We are also thankful to our members professionals and students for their confidence and commitment. We received significant support from the Region 9 Board, worldwide ComSoc and our Section. All of them are important for the success of our work. We started 2017 with a single student chapter and finished the year with three chapters in two different cities. At this time we also have new members on our leadership team: Sandra Hidalgo, President; Hubert Abasto, Vice President; Eduardo Trigo, Industry Coordinator/Treasurer; Andrea Ávila, TISP Coordinator; and Christian Velarde, Membership development.



Song Guo, IEEE ComSoc Distinguished Lecturer, with Bolivia Chapter volunteers.

IEEE Spain Section: 20 Years of ICANN's Foundation Observed from Europe

By Oscar M Bonastre, Chair of Standards, Technical and Professional Activities, IEEE Spain Section

Last year was the 20th anniversary of the Internet Corporation for Assigned Names and Numbers (ICANN), founded in 1998. The creation of ICANN absolutely changed the development of the Internet. Much of its work has concerned the Internet's global Domain Name System (DNS), including policy development for internationalization of the DNS system, introduction of new generic top-level domains (TLDs), and the operation of root name servers. ICANN has operated uninterrupted for 20 years, and has been (and is) making huge efforts to keep the whole framework up and running smoothly 24/7. During years after its foundation, the evolution of technology promoted deliberation about New Internet Trends in several venues around the world, and the international recognition of the DNS



Meeting of ICANN BoD. From the left: Vint Cerf, first, Eugenio Triana, second, and Mike Roberts, fifth. Source: ICANN.



Deliberating about New Internet Trends - from left to right, O. M. Bonastre, M. Roberts (1st CEO of ICANN), P. Mockapetris (DNS Inventor - Former IETF Chair) and A. Veà (Internet Biographer). Conference: ISummit 2009. Picture courtesy of Univ. Técnica Particular de Loja, Ecuador.

invention, the DNA of the birth and growth of ICANN.

For the celebration of ICANN's 20th Anniversary, an interview was promoted with one of ICANN's early founders. We returned to the origins of ICANN with Eugenio Triana, who played an extraordinary role in its conceptualization, building, and development. Eugenio Triana was appointed as one of ICANN's nine initial directors in October 1998. Further info about him is available online on the official web page of ICANN and the web page for the Board of Directors. He was thanked for his service by ICANN President Paul Twomey, and ICANN Board Chairman Vint Cerf. Chairman Cerf called upon George Sadowsky, the Chair of the 2005 Nominating Committee.

The dialog with Eugenio covered the conceptualization and governance of ICANN transmitted from his point of view, i.e., as a member of the European Commission, Deputy Director General, and the person responsible for the Commission's relations with the Information and Communications Technology user interests. Eugenio talked about the early origins from the perspective of European institutions and about the transfer of responsibilities from other institutions to ICANN. In particular, it was detailed how the unexpected death of Jon Postel affected the birth and initial structure of ICANN, the starting point of the

(Continued on Newsletter page 4)

IEEE Communications and Vehicular Technology Night at the Victoria Section, Canada

By Peiyuan Zhang, Lin Cai, Michael Hansen, David Gregson, Canada

On Nov. 23, 2018, the IEEE Joint Communications Society/Vehicular Technology Society (ComSoc/VTS) Chapter in the Victoria Section celebrated the anniversary of the chapter by hosting the IEEE Communications and Vehicular Technology Night in Victoria BC, Canada. The chapter was co-founded by Lin Cai and David Gregson in November 2017, and Michael Hansen serves the chapter as its industry liaison. The event brought together approximately 60 participants from academia and industry at the University of Victoria.

The event featured an invited technical talk and a poster session with 10 poster/demos bringing academia and industry together with technical and social opportunities related to the chapter's focus, communications and vehicular technologies, including IoT, 5G, clean and intelligent ground/air/water/space transportation, autonomous driving, AI, e-health, cyber-physical systems, information security and privacy, and smart cities.

Mr. Andy Eadie, Founder of EMC FastPass, gave an invited talk titled "EMC Compliance: Why 50% of Hardware Products Fail." This speech outlined the Electro-magnetic Compatibility (EMC) problem with the how and why neglecting EMC issues can negatively affect both equipment and systems, leading to significant cost overruns and loss of market share. Mr. Eadie discussed why the regulations exist, what the main EMC tests were and processes that multinational organizations put into place to minimize the impact. From a design perspective, he discussed



The Best Poster winner with chapter organizers. From left to right: Lin Cai, David Gregson, Wen Cui, Michael Hansen.

how to understand the mechanisms causing common issues and the solution options. The severity of EMC challenges in the vehicle industry were highlighted and discussed.

The best poster award was selected and presented to the poster entitled "Sleep Monitoring using Wireless Signals for Health Care." During the poster session, participants had the chance to taste pizza, fruits and beverage while getting together for both technical and social discussions. The successful event, supported VIATEC (Victoria Innovation, Advanced Technology and Entrepreneurship Council), is a testimony to the vibrant technology environment in the Victoria area. The IEEE Joint ComSoc/VTS Chapter in the Victoria Section plans to host similar events regularly to tie industry and academia together into an evening of shared technical/professional engineering experiences.

INTERVIEW/Continued from page 1

We organized a few other panels, namely one at the Global Information Infrastructure and Networking Symposium (GIIS) in Thessaloniki, Greece on "How to Increase the Presence of Women in Communications Engineering: Best Practices and Experiences," and another panel at the Global Communications Conference (GLOBECOM) in Abu Dhabi, UAE with title "Paving Your Way into Engineering."

Stefano: In what other ways does WICE provide active contributions to ComSoc activities?

Ana: This year, we started nominating Distinguished Lectures. We would like to contribute to increasing the participation of women in ComSoc committees and the number of females that receive awards, by improving the number and quality of nominations.

We would like all ComSoc members to be aware that WICE is here to help and that they can count on the support of WICE whenever they need any advice or help to increase the visibility of women in our society and the number of females who choose Communication Engineering and grow in their profession.

Stefano: What are your goals and plans for the next year?

Ana: My first goal for the next year is to increase WICE visibility and presence at conferences, with an emphasis on ICC and GLOBECOM, where we will be organizing WICE events.

We aim at having a permanent slot at these conferences, that we may share with Young Professionals, and will acknowledge the importance given by ComSoc to the promotion of the roles and visibility of our female members.

We are also working to increase the number and geographic diversity of active WICE members who contribute to our activities.

Stefano: How can we stay in touch with you and other WICE Committee members? How can we stay updated on your new initiatives?

Ana: The details of past and future activities of WICE can be found on our web page at <http://wice.committees.com-soc.org/>. We are also active on Facebook and LinkedIn. The WICE mailing list has over 4,000 members. It is a moderated list where we share important information about events, opportunities and the successes of our members, while we avoid any other kind of information that may be annoying or not relevant. So we welcome everybody with an interest in our activities to visit our web page and social media and join our mailing list.

I would like to acknowledge the opportunity to spread the message about WICE in the IEEE ComSoc *Global Communications Newsletter*, the support of ComSoc's President and VPs, ComSoc staff, and all WICE volunteers who are making this happen. I hope to see you at our next events, starting with ICC in Shanghai.

TORONTO CHAPTER/Continued from page 2

distinguished lecture program and local IEEE Toronto Section support.

The diverse collection of activities proved to be attractive to our professional membership as well as our academic membership. Activities brought into view innovation and practical aspects and provided a positive environment for learning and development. The best testament I heard was from a member during the technical/social event who said: "I have been a ComSoc member for years, but this is the first event I attended and I really enjoyed it. Thank you!". The technical/social event embodied our vision and set the stage for the year under the title "Innovations in Communications." The event featured three short technical talks from an industrial research company, a wireless service provider, and an applied researcher from the University of Toronto, Prof. Albert Leon-Garcia. A networking dinner followed the talks.

Hands-on workshops were well attended and received. The events attracted individuals from across many industries and academics interacting among each other and with the facilitator(s). The IBM IoT Watson platform workshop walked partic-

ipants through the platform and supported them by building a complete simulation scenario. IBM generously provided participants with six-month trial licenses. The two-day Cybersecurity of the Digital Substation workshop in partnership with Schweitzer and University of Toronto Electrical and Computer Engineering Department was another successful event that mostly attracted professionals from Toronto's power sector. Schweitzer facilitators provided a balance of theoretical and practical content, and worked with the participants using the Schweitzer lab equipment. We continued our technical seminars and distinguished lectures that were distributed between the main to universities in downtown Toronto. The chapter also organized industrial site tours in collaboration with the industrial relations committee.

The highlight of the IEEE Toronto Communication Society Chapter achievements is "collaboration," and this is why we would like to dedicate the 2018 Chapter Achievement Award to chapter membership, connections and supporters. We also would like to express our gratitude to the IEEE Communication Society, which provided us with support, tools and expertise to develop and improve our local membership experience. For the coming years, our objectives are to continue to invest in industrial partnerships and to establish collaborations with Student branches and Women in engineering chapters. We will be launching our activities at York University, and we are looking forward to engage with the Communication Society for more membership development focused programs. We are committed to the IEEE Communication Society's mission: to advance communications and networking technology for the betterment of humanity.

SPAIN SECTION/Continued from page 3

White paper and Green paper, and other anecdotes like the decision on the location of the headquarters, deciding between locations in Europe and the United States.

I want to express great gratitude to Eugenio Triana for his voluntary contribution to this interview made on 30 July 2018 from Alicante, Spain, and specially prepared in recognition of the 20th anniversary of ICANN.

The interview is available online, with audio included, at: http://www.circleid.com/posts/20181014_oral_history_of_the_early_days_of_icann_a_perspective_from_europe

The documentary of international recognition of the DNS inventor is also available online at:

<https://www.youtube.com/watch?v=v-M0LS66uGQ&feature=youtu.be>

**GLOBAL COMMUNICATIONS NEWSLETTER**

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IEEE Communications Society

www.comsoc.org/gcn
ISSN 2374-1082