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## INTERVIEW

## Women in Communications Engineering (WICE): Fostering Diversity, Equity and Inclusion

### Interview with Baek-Young Choi, Chair of the WICE Standing Committee

by Stefano Bregni, Global Communications Newsletter Editor-in-Chief, Director Conference Operations, and Baek-Young Choi, Chair of the WICE Standing Committee

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 on 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 Baek-Young Choi, Chair of the IEEE ComSoc Standing Committee on Women in Communications Engineering (WICE).

Baek-Young Choi is a Professor of Computer Science in the School of Science and Engineering at the University of Missouri, Kansas City, USA. She received her Ph.D. in Computer Science and Engineering from the University of Minnesota, Twin Cities. Her research interests generally lie in the broad area of networking and communications, with specific emphasis on Internet-of-Things, smart city technologies, and mobile security. She published three books on network monitoring, storage systems, and cloud computing, and published more than 100 papers and 2 awarded US patents. She has been a faculty fellow of the National Aeronautics and Space Administration (NASA), U.S. Air Force Research Laboratory's Visiting Faculty Research Program (AFRL-VFRP) and Korea Telecom's – Advance Institute of Technology (KT-AIT). She has been an associate editor for IEEE Internet-of-Things Journal, IEEE Consumer Electronics Magazine, Springer Journal of Telecommunication Systems, and Elsevier Journal Computer Networks. She has chaired the IEEE International Smart Cities Conference (ISC2) in 2018, the flagship conference of IEEE Smart Cities Initiative. She has also served for a number of conferences and workshops in various capacities, including as a Keynote Speaker, Workshop or Symposium Chair, Technical Program Chair, Tutorial Speaker, and many other roles as an organizing committee member.

**Hello Baek-Young. Let us begin by summarizing the representation of women in various grades of ComSoc Membership?**

Unfortunately, there is a wide gender gap in ComSoc Membership as in many other societies of IEEE. As of November 2022, only 13% of IEEE ComSoc Membership identify themselves as women. The representation of women becomes

smaller in higher ranks of Membership. Of the IEEE total ComSoc Membership, 24.4% are Student and Graduate Student Members, and 6.4% of total members are women students. That means that out of the total Student and Graduate Student Members, 26.2% are women and the remaining 73.8% are men or unknown. Then, out of 74.3% of all IEEE ComSoc professional members that includes Members, Senior Members, Fellows, Life Members, Life Seniors, and Life Fellows, only 5.1% of them are women, which is 6.4% of total IEEE ComSoc Membership. The remaining 94.9% of professional members are either men or unknown. Fellows or Life Fellows constitute 4.04% of total ComSoc Membership, and only 0.31% are women Fellows or Life Fellows. That means only 7.67% of Fellows or Life Fellows are women, and the remaining 93.32% are male or unknown. There are 2.8 times as many men who are Student or Graduate Student Members, then 12.1 times as many men who are Fellows or Life Fellows. (See the comparative membership charts below.)

IEEE ComSoc can benefit from retaining women Students Members transitioning to professional members, and encouraging elevations of women to Senior Members or higher ranks. WICE addresses the very issues of retention and promotion of women ComSoc members.

**Would you remind us something about the mission and history of the WICE Committee?**

WICE's mission is to promote the visibility and roles of women communications engineers and to provide a venue for their professional growth. It is a ComSoc Standing Committee aligned under the Member & Global Activities Council (MGA-C), of which Ana Garcia Armada is the current Vice President.

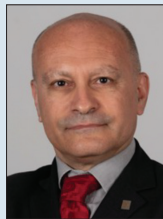
The idea of a WICE group was initiated by Heather Yu in 2008. Then, Sarah Kate Wilson took it to the next level as a ComSoc Ad-Hoc Committee. WICE was later elevated to a Standing Committee of ComSoc beginning with 2014, when Octavia Dobre was the WICE Chair and you, Stefano Bregni, were Vice President for Member Relations (renamed Member and Global Activities two years later).

**How did you get engaged with the WICE Committee and activities?**

Any woman ComSoc member is automatically a member of WICE. However, note that any ComSoc Members supporting gender Diversity, Equity, and Inclusion is also welcome to join WICE activities! Thus, we may say that I have been a member of WICE all along. However, my most prominent participation in WICE activities was when I co-organized the Joint Workshop of N2Women and WICE at ICC 2018, held in Kansas City, MO, USA.

As for serving on the WICE Committee as Officer, I have been serving as a Member-at-Large and I have been asked to serve as Chair after ICC 2022, when my predecessor, Nury Ramirez Cely, had to step down due to her personal and professional workloads.

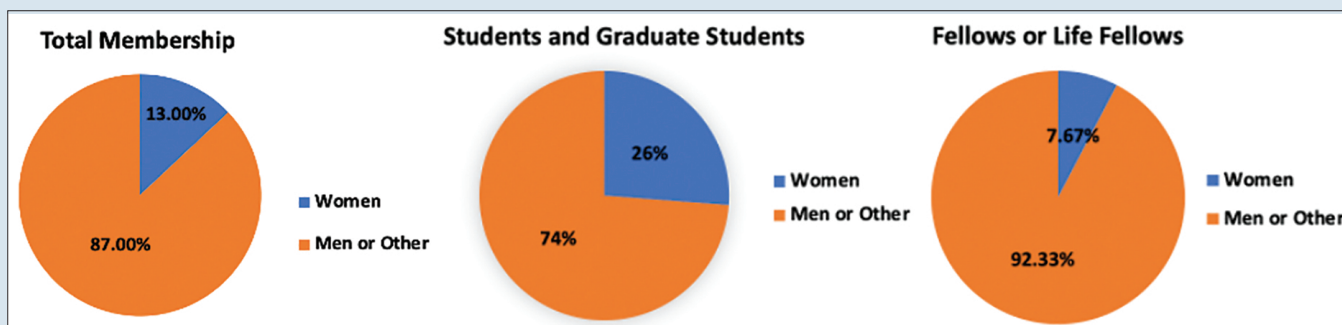
Due to COVID19 pandemic, conference activities had been challenging. Earlier this year, Nury managed to build a group of committed volunteers, relaunched in-person and hybrid events, put in place student contests, and supported other committees



Stefano Bregni



Baek-Young Choi



Percentage of women over ComSoc membership.

within ComSoc. Though she only served as the chair briefly, I am grateful to our committed WICE board members that she put together, who are from various regions around the world and continue to work passionately toward our mission.

**Would you also tell us something about the current composition of WICE?**

WICE has a number of positions in the Executive Board including, Chair, Vice Chair, Secretary (and Deputy), Publicity Chair (and Deputy), Industry Relation Liaison (and Deputy), Student Activities and Competition Representatives, Members-at-Large, and Young Professional Liaison (and Deputy).

Our committee consists of ComSoc members at various stages of their career journey ranging from students to Fellows and industry seniors and CEO. We also strive to ensure gender-diversified panels at all meetings including the WICE committee itself, where we have male committee members too. The current WICE committee roster is the following.

**ComSoc’s WICE Committee Members (2022–2023)**

- Baek-Young Choi — **Chair**
- Toktam Mahmood — **Vice Chair**
- Tina Marie Slivka — **Secretary**
- Bige Deniz Unluturk — **Publicity Chair**
- Aleksandar Mastilovic — **Student Competition Representative**
- Sinem Coleri — **Awards Sub-Committee Member-at-Large**
- Angela Yingjun Zhang — **Members-at-Large**
- Yessica Saez — **Members-at-Large**
- Shahrnaz Azizi — **Members-at-Large**
- Megha Quamara — **Members-at-Large**
- Kuljeet Kaur — **Secretary (Deputy)**
- Mallellu Sai Prashanth — **Publicity (Deputy)**
- Devika K M — **Student Activities**
- Paulina Chan — **Industry Relation Liaison**
- Rute C. Sofia — **Industry Relation Deputy**
- Joyce Mwangama — **Young Professional Liaison**
- Anupma Thakur — **Young Professional Deputy**
- Maite Brandt-Pierce — **Past Chair**

**What are most relevant service activities and initiatives offered by WICE to ComSoc Members?**

WICE organizes a number of activities and initiatives, including the following.

- WICE events at major ComSoc conferences: The WICE events offer free professional development programs for ComSoc members at any career stage, and promote the visibility of women ComSoc members.
- Student Travel Grants: The grants are offered for ComSoc flagship conferences such as ICC and Globecom
- Awards: We recognize the achievements of women ComSoc members, and promote their visibility through awards. The award categories are Outstanding Achievement Award, Early Achievement Award, Outstanding Service Award, Mentorship Award.
- Mentoring and networking sessions: WICE provides support and advice to students and young women in communications through a mentoring program. It is also an opportu-

nity for highly experienced WICE professionals to serve other women ComSoc members. We use the IEEE Mentor program implemented via IEEE Collabratec and its guidelines to follow through.

- Child Care Program: We offer childcare grants for ICC and Globecom attendees who bring small children to the conference.

**Focusing on this year in particular, what have been most significant activities carried out by WICE in 2022?**

WICE has been very active this year, both online and offline/in-person. We have been promoting women ComSoc members and WICE activities via social media such as Facebook and LinkedIn. We also have a very large number of subscribers to the mailing list.

After the online conferences of the first couple of years of the pandemic, now conferences are held in hybrid mode, and in-person attendance is increasing. Accordingly, more conference activities have been planned. WICE events were, or are to be held at a number of conferences, including WCNC’22, ICC’22, MeditCom’22, TenCon’22, LatinCom’22, and Globecom’22. Especially for Globecom’22, the WICE event had diverse programs of two panels, a mentoring session, and two professional career coaching sessions. While the programs are held both online and in-person, the majority of panelists, moderators and mentors are going to be in-person in Rio de Janeiro, Brazil. It was very well received with nearly 80~100 people attending overall. The open nominations and selections of WICE awards for this year have been recently completed. The award ceremony will also be held at ICC 2023 hoping most awardees would be present in-person.

As a special project for this year, under the leadership of MGA-C, 50 ComSoc women interview videos are being produced. WICE also supported other committees’ activities by ensuring women ComSoc members’ participation in the organization or operation of their activities. For instance, WICE helped with multiple activities and competitions for Pre-University and University students.

**Do you have any particular plans for next year?**

Next year, in addition to continuing our regular activities stated above, we hope to be able to extend childcare support via conference-hosted childcare, so that it would be more amenable for ComSoc parents of young children - male or female - to attend the conference.

We also plan to implement diverse formats and topics for our events at conferences. I also want to add that the WICE committee is always open to suggestions and ideas for its mission.

**A last remark to conclude?**

WICE is committed to helping the recruitment, retention, and career growth of women communication engineers toward gender diversity, equity, and inclusion in our society.

I very much appreciate the ComSoc leadership supporting WICE, and thank you, Stefano, Editor-in-Chief of the IEEE Global Communications Newsletter, for your integral and continued support for WICE and this opportunity to increase the visibility of women in ComSoc.

## Dinner Talk 2021 – 2nd Gap Filling for Thai Physics and Electrical/Communication Engineering

by Keattisak Sripimanwat, IEEE ComSoc Thailand Chapter Chair

In 2017, IEEE ComSoc Thailand launched the first dinner talk tracking back on a hundred years of Thai physics history and its brother, electrical engineering. From that successful beginning, a consequent event to promote human resource development and the policy & strategy alignment was then organized (online) on November 19, 2021. It was another time to fill local wide gap between physics and electrical engineering society. This event was also a part of 40th anniversary of IEEE Thailand section.

A representative for this second dinner talk from physics community is Assoc.Prof. Boonrucksar Soonthornthum, an advisor and former director of the National Astronomical Research Institute of Thailand (NARIT). While from electrical engineering, Prof. Monai Krairiksh, a former acting president of KMITL and former director of ECTI association (a sister society of IEEE Thailand section) is invited.

Warming up session with question & answer, both speakers shared their opinions responding to national highlight & hot news i.e. 1) national Lunar satellite project 2) wide gap of local vs international S&T on education, R&D, industry, and related policies 3) widespread pseudoscience without sustainable solution or host 4) poor science communications, and others.

Following with opened discussion, both experts presented many ideas on how two societies should do for the sustainable collaboration. For instance, Prof. Krairiksh raised on “joint syllabus, courses, or degree through multidisciplinary,” and “R&D topic should be started from the mutual interest and real social



Assoc. Prof. Boonrucksar Soonthornthum (physics – white) and Prof. Monai Krairiksh (electrical/ communication engineering – blue).

need.” While, Assoc.Prof. Soonthornthum agreed and offered joint seminars and conferences.

Over that one hour of discussion (a recorded video at [www.quantum-thai.org/dinner-talk](http://www.quantum-thai.org/dinner-talk)), there are many important keywords and ideas such as; “soft skill,” environmental friendly techs, “fact-checking” instead of “anti-fake news,” “science’s halve & halve (for a good policy image 50% : for society 50%), and science communication center.

Both speakers also gave us impressive opinions on how science and technology could help us to move on from recent trouble of COVID19 pandemic, including with various suggestions for new generation of physicists and engineers. They also expected that the next round of dinner talk (EP3), there should be a success story of gap filling showing on stage.

Finally, a former question should be left to the people of both societies another time. From 2017 to 2021, is the development gap between Thai physics & electrical/ communication engineering getting wider or narrower?

## DLT and DSP Programs in IEEE ComSoc Latin America in 2021

by Fabrício Braga Soares de Carvalho, IEEE Latin America DLT and DSP Coordinator, Brazil

The year of 2021 was very challenging due to the sanitary conditions and the severe restrictions faced by citizens from all over the world. In-person events and lectures were cancelled with the objective of providing safety conditions to everyone.

Despite the restrictions considering in-person events, IEEE ComSoc Latin America supported our members and chapter chairs with the organization of several virtual Distinguished Lectures and Distinguished Speakers lectures during 2021. A total of 30 virtual Distinguished Lectures were presented and 8 lectures from the Regional Speaker Program were also presented virtually.

Different chapters from Latin America were interested in hosting a distinguished lecture. Those lectures, with ComSoc Distinguished Lecturers, helped to reduce the distance between our members and top researchers presenting new and emerging topics in different fields of communications.

The following ComSoc chapters organized virtual distinguished lectures during 2021: Uruguay chapter (6 virtual lectures); Argentine chapter (5 virtual lectures); Peru chapter (5 virtual lectures); Ecuador chapter (3 virtual lectures); Chile chapter (3 virtual lectures); Panama chapter (2 virtual lectures); Colombia chapter (2 virtual lectures); Bolivia chapter (2 virtual lectures); Morelos chapter (1 virtual lecture); Northeast Brazil chapter (1 virtual lecture). Each virtual lecture session was promoted by the ComSoc Latin America Board as well as by the organizing chapter chairs.

Additionally, the Regional Speaker Program in Latin America organized 8 different lectures with renowned lectures from the entire South America and Central America region, reaching other relevant topics and attracting a significative audience with those virtual lectures. During the year of 2021, speakers from Brazil, Paraguay, Mexico, Panama, Colombia and Ecuador presented excellent and motivating lectures to ComSoc members from Latin America (and all around the world).

Based on the successful experience in 2021, IEEE ComSoc Latin America expected to continue with the Distinguished Lecturer and Distinguished Speaker programs during the next years.

Contact: Prof. Fabrício Braga Soares de Carvalho, D.Sc., IEEE Senior Member, DLT and DSP Coordinator – IEEE ComSoc Latin America – e-mail: [fabricao.braga@ieee.org](mailto:fabricao.braga@ieee.org)



Examples of banners promoting the virtual Distinguished Program in Latin America during 2021.

## IEEE Atlanta Section ComSoc Chapter is Striving to Add Value to Your Membership Experience

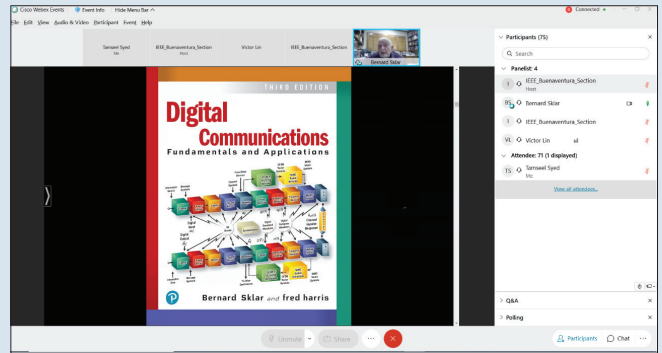
by Tamseel Mahmood Syed, IEEE ComSoc Atlanta Chapter Chair, IEEE Atlanta Section Vice Chair, USA

As the chair for IEEE Atlanta ComSoc chapter, it gives me great joy to write this update on the recent and upcoming activities of our chapter. Since my last update in the GCN article titled "The IEEE ComSoc Atlanta Chapter Offering Virtual Solutions to Help Its Members," the Atlanta ComSoc chapter has offered numerous virtual events that saw good attendance and revived interest. Some of the events were attended by more than 100 participants. Some events also offered the option to obtain professional development hours (PDH)/Continuing Education (CeU) credits which was popular amongst certain attendees. I encourage all the chapter chairs to consider applying for your future events to be eligible for offering PDH/CeU.

Due to the combined hard work of all Atlanta ComSoc team members, the ComSoc Chapter was also awarded with an Outstanding Chapter Award for the year 2021.

The Chapter also co-hosted and hosted some of the highly cited and active researchers in the field of communications like Dr. Bernard Sklar, Dr. Shiwen Mao, Dr. Chan-Byoung Chae, Dr. Mohammed Atiquzzaman, Dr. Mehdi Rahmati, Dr. Syed Hassan Ahmed, Dr. Kun Yang, Dr. Huseyin Arslan, Dr. Damla Turgut, Dr. Fawzi Behmann, Mr. Sharan Kalwani, Dr. Fred Harris, Dr. Marco Di Renzo, Dr. Ekram Hossain, Dr. Rui Zhang, Dr. Ashutosh Dutta, Dr. Octavia Dobre, Dr. Fabrizio Granelli and others.

The Chapter strives to continue offering more value to its members and welcomes any suggestions to improve the membership experience for IEEE ComSoc members in Atlanta. I was also honored to receive the R3 Young Professionals Service Award in 2021 and I look forward to mentoring more young professionals towards improved success in their careers. The Atlanta Section also submitted a proposal to host a school series in 2023 and if selected to host the event, we are excited to welcome you to come and visit us in Atlanta, GA USA at one of our upcoming events.



Bernard Sklar presented a 2-part lecture on ABCs of OFDM.



IEEE Region 3 presents YP Award to Atlanta ComSoc Chair Tamseel Syed.

If you live in Atlanta, please do not forget to reach out to one of the Chapter officers so we could connect and discuss what benefits and programs could add more value to your membership!

The Chapter officers went scouting for potential venue to be selected for the 2023 ComSoc School Series if Atlanta is the hosting destination for the program next year.

If you are interested to help out with volunteering for any event or just interested to be a speaker at one of our future events please reach out to Tamseel Syed (syed.tamseel@ieee.org) or Brian Page (bpage1@ieee.org) to know more about the Atlanta ComSoc Chapter. Also be sure to check out the chapter website at <https://atlanta.chapters.comsoc.org/> for more information.

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