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INTERVIEW

ComSoc Membership Services

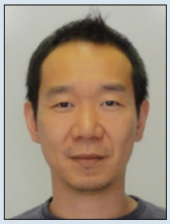
Interview with Song Guo, Director of Membership Services

By Stefano Bregni, Global Communications Newsletter Editor in Chief, Vice-President for Conferences, and Song Guo, Director of Membership Services

This is the third 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 (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 Song Guo, Director of Membership Services.

Stefano Bregni



Song Guo

Song is a Full Professor in the Department of Computing, The Hong Kong Polytechnic University. His research interests are mainly in the areas of big data, cloud computing and networking, and distributed systems, with over 400 papers published in major conferences and journals. He is the recipient of several Best Paper Awards. He was an IEEE Communications Society Distinguished Lecturer in 2016-2017. He serves on the Editorial Boards of several IEEE transactions.

Bregni: This is the first time you have served as a ComSoc Director. What are your first impressions? Any difficulties or challenges that you did not expect before beginning?

Guo: To get familiar with global membership status, I took quite a while analyzing member data in the past. The biggest challenge I see is to stop the membership decline that has been occurring in recent years.

Bregni: What is the first initiative under your leadership that you would like to present to our readers?

Guo: I have made significant effort to implement the Membership and Global Activities Contribution Award (MGACA) initiative proposed by VP of MGA Prof. Nei Kato. With the strong support of local chapter chairs, this initiative has shown effectiveness in proactively recruiting members, especially student members and graduate student members.

It's goal is to praise individuals who have made significant contributions to the IEEE Communications Society membership and global activities. An awardee should have recruited more than 50 ComSoc members (including undergraduate student members, graduate student members, members, etc.) each year in their local chapter. Also, the local chapter should have attained a net increase of at least 50 ComSoc members. Each awardee can receive a plaque from the MGA Council. An award ceremony will be held during Globecom each year at the MGA council.

The objectives are to:

- Foment and incentivize activities geared toward attracting new members to ComSoc and the renewal of membership by existing ComSoc members.
- Directly help ComSoc financially and indirectly help consolidate ComSoc's position as a standard for telecommunications professionals in academia and industry.
- Make an impact on both small and large chapters, motivating all to create programs to improve the member base.

Bregni: Chapters need funding to feed their activities. May you tell us more about that?

Guo: The chapter funding aspect of our Membership Development Program is in process with questionnaires having been sent and responses returned.

Each Regional Director decides whether a chapter should receive only the amount requested, and whether the chapter could better use the amount they are qualified for. Regional Directors are in the best position to judge the U.S. dollar value in their particular regions.

To date, we have rarely allocated more than $1000 to any one chapter, no matter how much they may have requested. This has provided a logical rationale and kept funding decisions fairly consistent. For 2018 our chapter-funding program is $55,000, and the breakout is as follows: "initiatives" ($300); membership recruitment ($200); speaker remuneration ($250); web expenses ($50); newsletter costs ($75); administrative ($75); other ($50); in total $1000.

Bregni: I know the Distinguished Lecturer Program (DLP) is probably the ComSoc program that is best appreciated by our members and local Chapters. Please tell us more about that?

Guo: The Distinguished Lecturer Program (DLP) is provided as a service to local Chapters. It is organized to benefit existing members and chapters. It can also be used to generate new membership and promote new Chapter formation. Lecturers are invited and events are organized by local Chapters, including student Chapters. Each Distinguished Lecturer Tour (DLT) is organized by providing at least three lectures in different locations.

The objectives of the Distinguished Speaker Program (DSP) are similar to those of the DLP, but it can support only one lecture and covers only local expenses. Distinguished Speakers may be any current and former DLs, IEEE Fellows, and prominent leaders.

From Jan. 1 to April 30 2018, we approved 27 DLTs (10 in AP, 7 in EMEA, 3 in LA, and 7 in NA) and 5 DSPs.

Bregni: Every few years, the Chairs of Chapters in a Region are invited to meet up in a Regional Chapter Chair Congress (RCCC) to share their experiences and discuss common problems. Please present your perspective on that and share what are your plans?

Guo: The Regional Chapter Chair Congress (RCCC) is held to encourage sharing, feedback, and networking among Chapter

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CHAPTER REPORT

The Saudi Arabia ComSoc Chapter is Spreading IEEE and ComSoc Benefits Across its Region

By Abdullah Almuttiri, Saudi Arabia Chapter Chair

The ComSoc Saudi Chapter, represented by its chair, Dr. Abdullah AlMuttiri, held an event at Qassim University at the beginning of January 2018. This event consisted of three consecutive lectures, in the central theatre, targeting faculty members and students from different faculties across the university.

The first lecture was entitled "Insight of the Institute of Electrical and Electronics Engineers (IEEE)," the largest professional association in the world dedicated to advancing technological innovation and excellence to facilitate the life of mankind. IEEE and its members inspire the global community through its scientific publications, scientific conferences, drawing specifications and technological standards, and professional and educational activities. The mission of the organization is to promote technological innovation and excellence for the benefit of humanity. Its vision is to be an essential reference for the global technical community and technical professionals everywhere, and to serve as a global basis for technology contributions and technical professionals in improving global technical conditions. The organization has more than 450,000 members in more than 160 countries, over 50 percent of whom are from outside the United States, including more than 117,000 student members, 334 branches in 10 geographical regions worldwide, 2116 specialist technical branches in more than 100 countries, 1481 specialized technical branches for students, and 486 convergence groups which are non-technical subdivisions of more than one department or board. Entities involved in patenting the convergence group are IEEE-USA, Young Professionals, Women in Engineering (WIE), Permanent Members (LM), and Entrepreneurs. IEEE has 39 specialized associations and seven technical councils representing a wide range of technical disciplines.

The organization has the largest and most famous digital library in the world, called IEEExplore®, which is a reference for scientists, researchers, academics and professionals around the world. The library has more than four million scientific documents, with more than eight million downloads every month. It has more than 1300 specifications and active technical standards and more than 500 specifications and standards under development. IEEE publishes approximately 200 specialized scientific journals, transactions, and magazines. It also sponsors more than 1800 conferences in 95 countries around the world, attracting more than 485,000 participants annually. It also has partnerships with more than 1300 global technical and industrial entities, and publishes more than 1500 sessions through the digital library.

The second lecture was entitled "The Activities of IEEE for the Communications Society in Saudi Arabia," a technical community specialized in communications and information technology and subsystems of Internet and cloud. The Society's branch in Saudi Arabia is a community composed of various professionals in industry, and private and government sectors of professionals and academics with a common goal to advance ICT technologies. The Telecommunications Association is a non-profit organization working closely with public and private organizations, educational institutions and universities. The objectives of the association are to enhance and provide WISA's technical and information services to its members in Saudi Arabia, to strengthen the global and regional technical activities in Saudi Arabia, to cooperate with the branches of the Telecommunications Association in other countries in the region to organize joint technical events, and other sister technical communities in Saudi Arabia.

The third lecture, entitled "The Internet of Things and Connected Technologies, Definition and Empowerment," in which Dr. Abdullah AlMuttiri discussed what the term Internet means and what the accompanying technologies will bring about by enabling and changing the world of electronics and smart communications. The term "Internet of Things" first appeared in 1999 (Kevin Ashton). The Internet is connecting people to each other, but the Internet of Things connects things to each other and connects them to the infrastructure in such a way that these things can capture information, process and take action on behalf of humans. It is estimated that there will be nearly 100 billion devices connected to a total economy of US $ 3.9 trillion to US $ 11.1 trillion by 2025. Consumers are accelerating the acquisition of smart devices due to the potential advantages of Internet products and applications and things because of the benefits and convenient services they receive. However, when these devices send information and receive them in large quantities, there is a huge amount of data gathered in quantities that cannot be handled by small and medium devices, and here comes the term of data is huge, which means analyzing data and extracting the most useful and sendng it to the beneficiary. Massive data is one of the technologies that will enable the Internet of Things to work with high efficiency, a smart new technology. When there is huge data and smart devices that receive and transmit information at high speeds and large quantities, there is a need to provide the appropriate place to save and distribute them as quickly as required to keep pace with the speed of smart devices and processing large data. The technology that will allow this is cloud computing, which will be able to handle the high demands of high-volume data and distribute it efficiently, allowing things to share information more effectively than the intelligence of these devices.

Dr. Abdullah honored by Qassim University for his efforts.

Meanwhile, a webinar on "Building Digital Trust in the Internet of Things Ecosystem" was delivered by Professor Muhammad Khurram Khan, chapter vice chair. The webinar took place online on 25 January 2018. Prof. Muhammad first provided a definition of the consumer trust upon adopting IoT technology. Second, he presented a conceptual model to reflect the influential factors that stimulate consumer trust, so that they willingly adopt, purchase and use IoT products. Furthermore, he highlighted the security requirements to be considered while developing IoT products and applications. Following that, he shed light on 'five acts' that could violate the security and privacy of IoT consumers. In addition, the four W's of privacy to engage consumers with a high-level of satisfaction in adopting IoT products and applications was discussed. Finally, he identified a number of future challenges that need to be resolved in IoT products and services, and some recommendations were also addressed to preserve consumer trust in IoT.

The ComSoc Saudi Arabia Chapter promotes ComSoc activities and values their members and strives to deliver activities on state-of-the-art technologies that are trending nowadays. The chapter has developed a promising plan for their members for 2018 and will work hard to achieve those defined goals. For any inquiries please do not hesitate to contact the chapter chair, Dr. Abdullah Almuttiri, at SaudiArabia_Chapter@comsoc.org.

CONFERENCE REPORT

5G and IOT Summit On Future Trends 2018 in Lahore, Pakistan

By Kashif Bashir, Chair IEEE Comsoc Lahore Chapter, Pakistan

The IEEE ComSoc Lahore Chapter, in collaboration with Sultan Qaboos IT (SQIT) Chair, organized a one-day "5G and IoT Summit on Future Trends 2018" on 23 February 2018. The event was hosted by Al-Khawarizmi Institute of Computer Science (KICS), a research center at the University of Engineering and Technology (UET) Lahore, Pakistan.

In the context of recent ongoing research on 5G and its deployment in IoT-based scenarios, this summit was organized to fill in the scientific-awareness gap in Pakistani academia and industry, especially among M.S. and Ph.D. students. Both students and faculty from different parts of the country participated in this event, notably UET Lahore, the Institute of Space Technology Islamabad, and Bahria University Lahore. There was also a very healthy participation by industry as well, most notably National Engineering Services Pakistan (pvt.) Limited (NESPAK).

The event started with the recitation of Quran followed by the very first speaker from industry, Mr. Muhammad Aatique (Radio Network Architect) from Telenor Pakistan. His talk on "Industry Challenges for 5G" covered a wide range of topics, 5G new radio and RAN architecture, and government policies. Next, Dr. Ijaz Haider Naqvi (Assoc. Prof.) and Dr. Momin Uppal (Assoc. Prof.) from Lahore University of Management Sciences (LUMS) delivered their talks on "Automatic Network Management and Network Health Estimation of Mobile Cellular Networks" and "NOMA for 5G Networks," respectively. Dr. Ijaz talked about RF optimization of mobile networks where network health is monitored by making use of key performance indicators (KPIs) collected through crowd sourcing. Dr. Momin covered NOMA strategies in both LTE-Advanced and 5G. Dr. Omer Waqar (from UET Lahore) presented his talk on "Information Theoretic Framework for Relay Networks with Wireless Power Transfer (WPT)" and discussed microwave energy harvested relay network. Dr. Ubaid Ullah Fayyaz (from UET Lahore) proceeded with his talk on "Channel Codes for 5G." He introduced the participants with Low-Density Parity Check (LDPC) and polar codes and discussed their future trends. In the final talk of the session Dr. Ghalib A. Shah from UET Lahore spoke about "IoT Communication Challenges and its Support in 5G." He highlighted the characteristics of IoT applications and their communication requirements, and discussed mobile network technologies as the potential solution and its evolution toward supporting IoT requirements.

In the final session, a panel discussion was held where the panel was comprised of members from both academia and industry. It started with Dr. Ghalib moderating and questioning panelists on how to promote research in Pakistan.

Group photo at the 5G and IoT Summit.

At the conclusion of the event, Dr. Waqar Mahmood, Chair Sultan Qaboos IT Chair and Director KICS, gave a closing speech sharing his experience with the students and admiring the IEEE Comsoc Lahore chapter and all those who created this event and the participants as well for their motivation to learn about the new trends. Finally, all the speakers were presented with shields and participants were awarded with a certificate of participation.

CONFERENCE REPORT

Dinner Talk 2017: Filling a Gap for Thai Physics and Electrical/Communication Engineering

By Keattisak Sripimanwat (D.Eng), Thailand Chapter Chair

A special event to promote human resource development was organized by IEEE ComSoc Thailand with the ECTI Association on 20 May 2017 at engineering faculty, Rajamangala University of Technology Phra Nakhon in Bangkok. From the history, there was a long time and wide gap locally between physics and electrical engineering. Then, experts from both fields were invited to give an initial solution for making both societies closer.

Starting with the statement on the technical gap, there are various examples shedding light on the confusion between this brother community. Those are, for instance, in the new quantum communication field, as the quantum satellite, quantum repeater, and quantum "HACKING". In particular, the latter is that the method to steal photons at the owner's private place by opening the machine with heavily using optical and electronic tools along with the invited hacker (without consideration to the data at any storage nor password or other properties!). Borrowing the word hacking from classical IT by physicists, however different the meaning is mostly from the original, is a good illustration. Furthermore, a number of other ambiguous stories are still waiting to be clarified.

In addition to the above technical side, there are also other arguments apparently shown among local physicists and electrical/communication engineers as in human resource management, educational systems and support policy, R&D budget, their priorities in national S&T roadmaps, etc.

Prof.Emeritus Thiraphat Vilaithong (second from left) and Assoc. Dr. Narong Yoothanom.

Initially, the IEEE ComSoc Thailand chapter agreed to help bridge that junction. The first dinner talk was then launched in order to track back on 100 years of Thai physics history and its brother, electrical engineering. We invited two colleagues from both communities who already spent more than 50 years of their working life in. They are Assoc. Dr. Narong Yoothanom, who is 75 years old and a senior advisor, a top class in electrical/ communication engineering school, and Prof. Emeritus Thiraphat Vilaithong, who is 72 years old, a physicist and the director of the Thailand Center of Excellence in Physics.

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Chairs of a particular Region, inviting ComSoc Officers and ComSoc Staff to meet the chairs and participate in the Congress. The RCCC is hosted by the Region Director in consultation with the MS Director.

The NA RCCC was just held in conjunction with IEEE ICC 2018 in Kansas City, USA on May 19-20, 2018. Many hot topics, challenges and suggestions were raised, and I fully agreed on the following five recommendations made by the Region Representatives and Chapter Chairs:

(1) Create a ComSoc Membership "30 sec, 3 min, 30 min" pitch (what it is, why, what value and how to take advantage),

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(2) Empower volunteers at the four ComSoc Regions and the ComSoc chapter levels to function more autonomously to enable membership growth.

(3) Create a Tiger Team of staff and volunteers to develop the appropriate membership fee models and pricing for ComSoc membership.

(4) Investigate how ComSoc can become involved in humanitarian and community development activity.

(5) Recognize the most active/successful volunteers at the Region and Chapter level.

Bregni: What are your plans for the next months of your term?

Guo: After MGACA was implemented in March 2018, the membership level is stable when compared with the previous year in the same months for the first time in recent years. The highest priority task in the near future is to keep this momentum by expanding the impact of the MGACA initiative and exploring other alternatives.

DINNER TALK 2017/*Continued from page 3*

During the talk, we all learned the history of both sides compared to many related cases overseas. By looking forward to the next decade, networking people of both societies, "engineering the physics", expanding or setting up further joint activities, are also discussed impressively.

Seventy people (IEEE members and non-members from universities, industry, and others) as well as a former deputy Minister of Science and Technology, attended this free event with a buffet dinner. Pictures and a sound recording are available at www.quantum-thai.org/dinner-talk.

After talking and filling (some part of) the gap by people from both societies, another absolute question awaiting everyone to answer was on at the end.

How far is the gap between Thai physics and electrical/communication engineering and those of developed countries?