

Asia/Pacific Region Interview with Wanjiun Liao, Director of the Asia/Pacific Region

By Stefano Bregni, Vice-President for Member Relations, and
Wanjiun Liao, Director of the Asia Pacific Region

This is the third article in the series of eight, opened in September and published monthly in the *IEEE Global Communications Newsletter*, which covers all areas of IEEE ComSoc Member Relations. In this series of articles, I introduce the seven Member Relations Directors (namely: Sister and Related Societies; Membership Programs Development; AP, NA, LA, EAME Regions; Marketing and Industry Relations) and the Chair of the Women in Communications Engineering (WICE) Standing Committee. In each article, one by one they present their activities and plans.

In this issue, I interview Wanjiun Liao, Director of the Asia/Pacific Region. Wanjiun is the Y. Z. Hsu Scientific Chair Professor, a Distinguished Professor and the Department Chair of Electrical Engineering at the National Taiwan University (NTU), Taipei, Taiwan. She was an IEEE ComSoc Distinguished Lecturer (2011-2012), Associate Editor of *IEEE Transactions*

on *Wireless Communications* (2003-2010), and of *IEEE Transactions on Multimedia* (2004-2007). She is a Fellow of IEEE. She has been a member of the IEEE Fellow Committee since 2013.

It is my pleasure to interview Wanjiun and offer her this opportunity to present the activities of the AP Board.

Bregni: *Wanjiun, what outstanding characteristics of the Asia/Pacific Region would you highlight?*

Liao: The Asia/Pacific (AP) region, also known as Region 10, is the region with the largest number of members in IEEE ComSoc. The AP region is also one of the fastest growing economies with exciting opportunities. This further makes Region 10 the most popular region for ComSoc professionals to deliver Distinguished Lecturer Tours (DLT) and Distinguished Speaker Programs (DSP). In 2014 (as of Oct 1 2014) the total number of DLT/DSP in the AP region is 15, which is much higher than the total in the rest of the world!

Bregni: *What about the governance of the Asia/Pacific Region?*

Liao: The IEEE ComSoc Asia/Pacific Board (APB) is a well-organized and highly respected organization in ComSoc. The reputation results from the hard work of APB officers and volunteers over the years. The mission of APB is to address all ComSoc activities and programs related to AP members and chapters, including fostering provision of technical activities and information services to our members, expanding membership in AP, and reflecting the interests of AP members in ComSoc policies and procedures.

Bregni: *How is the Asia/Pacific Board organized?*

Liao: In the APB, there is one director, three vice directors, one treasurer, and one secretary, plus five operation committees, supported by the AP office in Singapore. We organize APB meetings, including the steering meeting and the general meeting, twice a year, at ICC and GLOBECOM. The steering meeting is to handle challenges in promoting APB activities and to explore new services to our members. The general meeting is to provide a good platform for APB members to make friends, share information, discover new research directions, and facilitate academic-industry collaboration.

Bregni: *What are the roles and responsibilities of the various APB Officers?*

Liao: In APB, the Director and the three Vice Directors oversee the provisioning of the APB activities to all ComSoc members in the AP region. The technical activities and service provisioning are organized into five committees, each with one chair plus several vice chairs: Technical Affairs Committee (TAC), Membership Development Committee (MDC), Information Service Committee (ISC), Meeting and Conference Committee (MCC), and Chapter Coordination Committee (CCC). The volunteers come from academia and industry, with a good mix of geographical locations, gender, and seniority.

Bregni: *It looks like a complex structure! Would you tell us more about the scope of those five Committees?*

Liao: The mission and plan of each of the five committees are summarized as follows:

1. TAC: to promote technical activities and to foster award activities, including AP young researcher, outstanding paper awards, and IEEE GOLD awards, for ComSoc members in the AP region.
2. MDC: to collaborate with ComSoc chapters in the AP region to promote academic and industry membership, and to liaise with sister and related societies for professional activities.
3. ISC: to create and distribute APB newsletters, to maintain the APB webpage, facebook, and to manage on-line DLT/DSP programs to AP region members.
4. MCC: to encourage AP region members to organize, host, and participate in AP regional and ComSoc flagship conferences.
5. CCC: to coordinate with IEEE ComSoc Membership Development Program (MDP) to run DLT/DSP programs and to manage chapter activities in the AP region.

Bregni: *What are your plans in the short term?*

Liao: In the future we will continue our good tradition, address the new needs of our members, and tackle new challenges. I believe we have formed an excellent team of APB officers who have already done a very good job. We do need more involvement and strong support from our members. There are many opportunities for ComSoc members in the AP region in the near future, but to best exploit these opportunities we AP region members must work together!

Distinguished Lecturer Tour of Xiaoming Fu in Shanghai and Beijing, China, May 2014

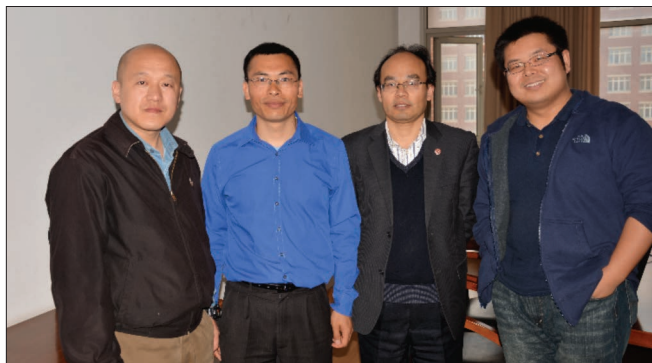
By Xiaoming Fu, Univ. of Goettingen, Germany

Having the opportunities to deliver several lectures on data networking and Internet computing in Asia and Pacific, Europe, North America and South America, I have been honored to be appointed as an IEEE Communications Society Distinguished Lecturer in January 2014.

China is my home country where I grew up and was educated. In recent years I have participated in several EU-sponsored or bilateral projects involving some Chinese partners, which provided much enjoyment and fresh experiences with different Chinese colleagues. Nevertheless, my personal feeling is that they are more project-driven, unlike a global organization such as IEEE ComSoc, which could bring a different value for the whole research community.

Upon the invitations of the IEEE ComSoc Shanghai Chapter and the Beijing Chapter, I had the opportunity to make my first DLT to China. IEEE ComSoc Asia-Pacific Project/Admin Executive Ewell Tan was extremely efficient and professional in communicating with local chapters and sectors on my DLT schedule. The initial thought was to deliver lectures in Nanjing, Shanghai, Wuhan, and Beijing, but due to time conflicts I could not visit Wuhan, and some of my lectures ("Fine-Grained Multi-Resource Scheduling in Cloud Datacenters" at Nanjing University in Nanjing and Fudan University in Shanghai, as well as "Content Distribution: from Client/Server to Content-Oriented Publish/Subscribe System" at Tsinghua University in Beijing) were delivered outside the DLT program due to synchronization issues with the local chapters. Although these lectures were not directly under the IEEE DLT flag, Ewell encouraged me to deliver them as planned, which actually turned out to be well perceived by colleagues and students in these institutions.

After my Nanjing trip, I arrived in Shanghai on 4 May and gave a lecture at Fudan University on the morning of 5 May. After lunch I visited Shanghai Jiao Tong University (SJTU), one of the top engineering universities in China, for the first time, and gave my first DLT lecture on the design, implementation, and evaluation of scalable microblogging systems. There were over 30 attendees, some faculty members, and many graduate and undergraduate students from SEIEE, including all students from a seminar course usually planned for that slot. The audience showed a great interest in the topic, and I enjoyed the interactions during the talk and in the Q&A period after the presentation. In particular, I received emails from some students after the seminar. Some of them wanted to study in Göttingen and work on related topics. My hosts Prof. Xinwan Li (IEEE ComSoc Shang-



Xinbing Wang, Xiaoming Fu, Xinwan Li, and Xiaohua Tian at SJTU (from left to right), right after the Q&A.



Lin Zhang, Tarik Taleb, Dieter Hogrefe, Xiaoming Fu, and Qimei Cui at BUPT campus.



DLT at ICT-CAS.

hai Chapter Chair, and Vice Dean of SJTU-Michigan University Joint Institute), Prof. Xinbing Wang (IEEE ComSoc Shanghai Chapter Chair), and Dr. Xiaohua Tian were very thoughtful, and warmly invited to visit their labs in SEIEE as well as the Michigan University-SJTU Joint Institute. From my personal feeling, SJTU is certainly China's most modern university, owing to their broad visions, maximal elimination of bureaucracy, and efficient adoption of a western educational culture. SJTU also has an open mind to attract world-class experts and scientists to work there or collaborate with them. It's amazing that many faculty members hold U.S., Canadian, Japanese, or European Ph.D. degrees, and they are implementing the tenure-track system with competitive salary and expectations. SJTU's Minhang campus is huge, beautiful, and elegant. I did not have the time to visit it except for the office buildings of Prof. Li, Prof. Wang, and an in-campus coffee bar, but I definitely want to see the entire campus on a future trip.

My next DLT lecture took place at Beijing University of Posts and Telecommunications (BUPT) on 7 May 2014. In the classroom I was delighted to meet another DLT lecturer, Dr. Tarik Taleb, a colleague from NEC Europe Networking Lab, Heidelberg, Germany, who gave a lecture just before mine. We have known each other for quite some time and we are both located in Germany. His lecture focused on cloud computing architecture perspectives, while mine was more focused on the Internet service and systems point of view. There were roughly 40 attendees, mostly faculty members and graduate students from the Communications Engineering department, from which I saw there was a keen interest in learning about the social networks domain and other emerging Internet services. After the lecture I also had the pleasure of meeting our current EU project partners (Prof. Lin

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Fifth International Conference on Wireless Communications and Signal Processing (WCSP, 2013), Hangzhou, China

By Zhaoyang Zhang, TPC Co-Chair, Zhejiang Univ.; Caijun Zhong, Zhejiang Univ.; Guangguo Bi, Chair of Nanjing Chapter

The 5th event in the successful series of WCSP, 2013 International Conference on Wireless Communications and Signal Processing (WCSP 2013) was held 24-26 October at the Dragon Hotel, around the picturesque West Lake in the beautiful city Hangzhou, China. The conference attracted more than 250 academics, engineers, and students from 19 countries and regions around the world.

WCSP 2013 was co-sponsored by the IEEE ComSoc Nanjing Chapter and the IEEE SP Society Nanjing Chapter. It was also technically co-sponsored by the IEEE Communications Society and the China Institute of Communications. WCSP 2013 was hosted by Zhejiang University, China, and co-organized by Southeast University, China, Nanjing University of Posts and Telecom., China, PLA University of Science and Tech., China, and the University of Science and Tech. of China.

Following the great success of WCSP 2009, WCSP 2010, WCSP 2011, and WCSP 2012, WCSP 2013 aims to bring together international researchers from academia and practitioners from industry to meet and exchange ideas and recent research advances on all aspects of wireless communications and signal processing. This year WCSP 2013 received a total of 601 submissions from 27 countries and regions around the world. All papers were rigorously and independently peer-reviewed by more than 350 specialists from universities, institutes, and companies around the world. Based on the level of relevance, originality, technical contributions, and presentation quality, 262 high quality papers were selected for publication in the final conference proceedings, yielding an acceptance ratio of 43.59%. Accepted papers were organized into 46 sessions with four technical symposia: Communication Theory Symposium, Wireless Communications Symposium, Signal Processing for Communications Symposium, and Wireless Networking Symposium.

In addition to the exciting technical sessions, the technical program of WCSP 2013 also featured six exceptional and splendid keynote speeches and an invited special talk delivered by distinguished experts from the IEEE Communication Society. The keynote speeches addressed the following topics: "Towards a theory of security for wireless networking" by Prof. P. R. Kumar, IEEE Fellow, Texas A&M University, USA; "Network localization and navigation" by Prof. Moe Win, IEEE Fellow, Massachusetts Institute of Technology, USA; "Relay-by-smartphone: a dual mode ad hoc network system for disaster-affected areas" by Prof. Nei Kato, IEEE Fellow, Tohoku University, Japan; "A new paradigm for mobile social networking: social tie, group utility maximization and privacy" by Prof. Junshan Zhang, IEEE Fellow, Arizona State University, USA; "Cognitive wireless networks: enabling 5G mobile communications" by Prof. Ying Chang Liang, IEEE Fellow, Institute for Infocomm Research, Singapore; and "Challenge of signal processing in 5G wireless" by Mr. Ganghua Yang, Huawei Technologies Co., Ltd., China. The invited special talk entitled "What's next after OFDM?" was given by Prof. Xianggen Xia, IEEE Fellow, University of Delaware, USA. All talks aroused much interest and received high praise from the attendees.

Best Paper Awards were given to 10 researchers' work covering various aspects of wireless communications and signal processing, namely: "Community detection based reference points clustering for indoor localization in WLAN"; "Secrecy-based channel assignment for device-to-device communication: an auction



The General Co-Chair, vice president of Zhejiang Univ., Prof. Zhaohui Wu gave the welcome speech at the opening ceremony.



Prof. P. R. Kumar delivered the keynote talk.



The winners of the Best Paper Award at the Banquet.

approach"; "Precoder design for dual-stream MIMO multicasting"; "DCT-based channel estimator for OFDM systems: threshold setting and leakage estimation"; "On the optimum energy efficiency for flat-fading channels with rate-dependent circuit power: time-invariant case"; "Recursive geometric water-filling for wireless links with hybrid energy systems"; "Ergodic capacity analysis of dual-hop ZF/MRT relaying systems with co-channel interference"; "Power allocation strategy for MIMO broadcast channels with receiver cooperation"; "Relay selection scheme in the presence of co-channel interference"; and "Optimal cooperative sensing and resource allocation in cognitive radio networks".

WCSP 2013 also offered participants the opportunity to visit the beautiful city of Hangzhou and its surroundings, to enjoy the wonderful, romantic, big live-action performance 'Impression West Lake', and to taste the special Hangzhou dishes as well.

Acclaimed by the participants for its high quality technical program and excellent organization and local arrangements, WCSP 2013 achieved a great success. All 262 papers included in the conference proceedings are included in IEEE Xplore and indexed by EI Compendex. We believe that, under the guidance of the steering committee and with the continuing efforts from all the

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Looking Back at the Development of our Technologies

Dr. Jacob Baal-Schem – SLM, Tel-Aviv University, Israel

Due to the pace of development of communications technologies, we hardly have time and interest to turn back and look at our achievements, and to guide our students accordingly.

Just think that:

- 100 years ago there were no official broadcasting stations in the world.
- 50 years ago you could hardly find a portable radio set and all receivers worked on vacuum tubes.
- 40 years ago a “walkie-talkie” was a huge and heavy piece of equipment.
- 20 years ago the fastest way of written communication was by facsimile.

Look around and you can still meet the people who have developed the technologies that are so common to all of us today. Look around and you can sense the social impacts of these technologies on our daily life. This gives us a special opportunity to learn and discuss with those “elders” how these technologies were developed and receive lessons “from the mouth of the horse.”

Actually, we seldom compare the long evolution of music recordings – 78rpm vinyl records to the MP3 and MP4 files of our children – and think how much effort was involved and how many scientists and technicians have spent their lives to achieve these changes. This is especially true for young students and even for young engineers. The past seems unimportant to many of them, while actually, “Who controls the past controls the future. Who controls the present controls the past” (George Orwell in “1984”).

The IEEE Israel Section (actually, members of the ComSoc Chapter) has initiated, and IEEE Region 8 has approved, organizing a series of HISTory of ELectrotechnology CONferences – HISTELCON. The first HISTELCON was held in Paris, France, in 2008. The second was hosted by the Spain Section in Madrid, Spain, in 2010, and the third was hosted by the Italy Section and the local University in Pavia, Italy, in 2012. Approaching the 2012 event, the IEEE History Committee decided to cancel its bi-annual Histo-

ry Conference and all Committee Members participated in HISTELCON. The next HISTELCON is planned to be held at Tel-Aviv University, Israel in late August 2015, jointly with IEEE History Committee and Center and with a new partner: the International Committee on History of Technology (ICOHTEC). There is already interest to hold a future HISTELCON in Tokyo, Japan, and there is hope that the HISTELCON series will become the flagship IEEE Conference on the History of Technology.

Each of these Conferences brings together scientists, technologists, and historians to consider the ways by which our technologies developed, mainly during the 20th century. They consist of keynote lectures by eminent scientists, frontal presentations by the participants (based on reviewed abstracts), panel discussions, as well as visits to technical sites and the participation in social events, during a full week of activities.

The technology whose history is discussed incorporates state-of-the-art knowledge and is valued for its inventiveness and wide socio-cultural implications. As such, these are the focal points for research by historians of technology, scientists, and engineers exploring the emergence of their own field of expertise, as well as for economists, sociologists, and others.

The organizers aspire to a multifaceted picture of the developments of such technologies from various approaches, with talks discussing subjects that include (but are not restricted to) the origins, evolution, and demise of various techniques and methods, their employment, spread, and appropriation, the cultural, social, military, economic, scientific, natural, and technical factors that shaped these events, and the ways by which technologies influenced societies that adopted them.

The IEEE Israel Communications Chapter, the first Chapter of the first Section in Region 8, has enthusiastically participated in the organization and in the program of these Conferences, and all ComSoc members are heartily welcomed to participate in HISTELCON. For any questions, please contact: j.baal.schem@ieee.org

DISTINGUISHED LECTURER TOUR/*Continued from page 2*

Zhang and Prof. Jun Guo) and IEEE ComSoc Beijing Chapter Chair Prof. Xiaofeng Tao, and discussed some issues related to crowdsourcing and mobile cloud computing.

I delivered my third DLT lecture at the Institute of Computing Technology, Chinese Academy of Science (ICT-CAS), on 8 May 2014, with some 15 attendees, primarily the members and graduate students from Prof. Yiqing Zhou’s lab. In the beginning Dr. Xue Han presented the structure of ICT-CAS and research activities in their lab on behalf of Prof. Yiqing Zhou, who could not attend the lecture due to sickness. My understanding is that they have primarily focused physical layer, link layer, and network layer functions in the 4G/5G direction, complementing what we have been pursuing in the network layer and above.

In summary, I had a pleasant and fruitful first DLT in China. I enjoyed it very much, thanks the generous support of IEEE ComSoc and also the hospitality of local chapters.

WCSP 2013/*Continued from page 3*

co-organizers, the WCSP conference series has established itself as the premier forum for the presentation of new advances and research results in the fields of wireless communications and signal processing.

WCSP 2014, the next edition of WCSP, will take place in Hefei, China, 23-25 Oct., 2014. The conference will be hosted by the University of Science and Technology of China. For more information about WCSP 2013 and WCSP 2014, please visit <http://www.ic-wcsp.org>.