= A Serial Introduction Part 4=
Winners of ITU-AJ Encouragement Awards 2017

In May every year, The ITU Association of Japan (ITU-AJ) proudly presents ITU-AJ Encouragement Awards to people who have made outstanding contributions in the field of international standardization and have helped in the ongoing development of ICT.

These Awards are also an embodiment of our sincere desire to encourage further contributions from these individuals in the future.

If you happen to run into these winners at another meeting in the future, please say hello to them.

But first, as part of the introductory series of Award Winners, allow us to introduce some of those remarkable winners.

Amane Miura

National Institute of Information and Communications Technology (NICT)
amane@nict.go.jp   http://www.nict.go.jp/en/
Fields of activity: Satellite Communications

International Standardization of Integrated MSS Systems

It is my great honor to receive the ITU-AJ Encouragement Award.

Entering the 2000s, satellite operators in Europe and the United States drafted specifications for integrated Mobile Satellite Service (MSS) communication systems, with terrestrial systems using the same frequency bands as mobile satellite communication systems in a complementary way. These terrestrial systems are called Ancillary Terrestrial Component (ATC) in the United States and Complementary Ground Component (CGC) in Europe, but they are both based on the same concept. Both aim to improve transmission services by operating complementary services through terrestrial base stations (ATC/CGC) on the same frequency band as MSS. Several plans were drafted by multiple satellite operators for MSS/ATC systems using the L/S band, and satellites were launched in the period from 2008 to 2010 (although commercial services have not yet begun). Recently, the company Inmarsat proposed a satellite/terrestrial S-band frequency-sharing mobile communication service for aircraft use in Europe, called Aviation CGC (ACGC).

Discussions on international standardization of integrated MSS systems began at the Asia-Pacific Telecommunity Wireless Group (AWG) and the International Telecommunication Union Radiocommunication Sector (ITU-R) in around 2013-2014. During 2008-2012, NICT had conducted R&D on the Satellite/Terrestrial Integrated Mobile Communications System (STICS), which is a kind of integrated MSS system, as commissioned research for the Ministry of Internal Affairs and Communications of Japan. I joined both the AWG and ITU-R meetings to promote STICS technologies.

2013-2014 meetings in AWG included activity to create the APT Report, "Studies within the Architecture and Performance of Integrated MSS Systems and Hybrid Satellite/Terrestrial Systems below the 3 GHz Band." In ITU-R, 2014-2016 SG4 WP4B meetings included similar activity to create the ITU-R Report on Question 291/4, "System architecture and performance aspects of integrated MSS systems." I have continuously contributed input on the achievement of STICS R&D in both of these meetings. These reports have been finalized and published successfully, as APT/AWG/REP-57 and ITU-R Report M.2398.

In the future, I would like to continue to contribute to standardization activities in the field of satellite communications.

Dai Yamakami

NTT East, International Division (On assignment to: Japan Telecommunications Engineering and Consulting Service)
yamakami@jtec.or.jp   http://www.jtec.or.jp/english/
Fields of activity: International cooperation activities

Telecommunications cooperation in developing countries

I am honored to have been chosen to receive the ITU-AJ Encouragement Award.

I was originally sent out to assist in restoration of telecom services after a devastating hurricane, and working together with local counterparts, we engaged in troubleshooting and repair of subscriber lines and infrastructure around the capital city of Port

Vila in the Republic of Vanuatu.

The Vanuatu mission was hugely successful, for I was able to maintain and repair subscriber lines, identify weak points in the infrastructure thanks to trouble reports submitted by subscribers, and quickly isolate faults and restore service.

Inspired by this initial assignment to Vanuatu, I participated

in a number of other telecom projects taking me to Cambodia, Myanmar, and Vietnam. My eight years of service working for NTT Vietnam are especially memorable. Working in close collaboration with the Vietnam Posts and Telecommunications Group (VNPT), we made remarkable progress developing Vietnam's telecom infrastructure, deploying FTTH, and rolling

out new services.

Looking ahead, I plan to continue working with personnel from local telcos dealing with problems in developing countries, struggling to overcome local obstacles, and promoting telecom cooperation in developing countries.

Kazuhisa Yamagishi

NTT Corporation, Network Technology Laboratories
kazuhisa.yamagishi.vf@hco.ntt.co.jp
http://www.ntt.co.jp/qos/eng/person/yamagishi/index.html
Fields of activity: Performance, QoS and QoE

Standardization of quality assessment methodology for video communication services

I feel greatly honored to receive the ITU-AJ Encouragement Award, and would express my appreciation to the Selection Committee and to all those who helped me along the way. This award recognizes my contribution to standardization of quality-estimation models for video communication services.

Since joining ITU-T SG12 in 2005, my work has focused on the standardization of quality-estimation methods for video communication services. These methods are extremely useful in designing applications and networks, and for monitoring the quality of services that are up and running.

During the 2004-2008 study period, I worked on a quality-estimation model, called a planning model, for videophone services. Designated ITU-T Recommendation G.1070, the model takes application and network parameters into account such as bitrate and packet-loss ratio. The model is used in designing applications and networks for videophone services, and is the first quality-estimation model for video communication services developed by ITU-T SG 12. Being the first model,

it has informed all subsequent standardized video-quality-estimation models. Although this was my first involvement in ITU-T standardization work, I was exposed to the whole process of standards making: I proposed the scope, the terms of reference, identified a candidate model, verified the quality-estimation accuracy of the model, and as editor, I drafted the final recommendation with support of other SG12 colleagues.

Subsequently, I participated in a study to develop quality-monitoring tools for IPTV services (ITU-T Recommendation P.1201) and adaptive-bitrate streaming services (ITU-T Recommendation P.1203), and helped draft quality-estimation model proposals and recommendations in the 2009-2012 and 2013-2016 study periods, respectively. The range and depth of these various activities sharpened my analytical skills and greatly extended my network of professional colleagues.

I am convinced that these activities will help address the operational challenges of service providers and promote sound development of video communication services.

NEC Corporation Transportation and City Infrastructure Division (currently NEC Corporation Safer City Solutions Division)

https://www.nec.com/en/global/solutions/biometrics/index.html
Fields of activity: Face recognition

Contribution to wider utilization of face recognition around the world

It is a great honor for NEC to receive this award. We would like to thank the ITU Association of Japan (ITU-AJ) and other organizations and individuals who have made this possible. NEC has been involved in research and development on fingerprint identification and face recognition for over half a century. The technologies resulting from these initiatives have been used to ensure safety and security around the world and have contributed

to job creation, human resource development, and other economic activities in different countries. We are therefore truly honored to have our efforts recognized through this award. Our face recognition solutions continue to be deployed by more and more customers. We have also continued our research and development initiatives to not only increase their accuracy and speed, but also to strengthen measures against identity fraud, and make the

solutions available to a wider range of users. Moreover, since biometric technologies have different characteristics, combining multiple technologies, such as face recognition and fingerprint identification, enables recognition with higher accuracy and utility value. NEC, therefore, has pursued research and development on various biometric technologies. One of them, iris recognition, has been ranked number one in a recent accuracy testing (April 2018). Going forward, we will continue these initiatives to make biometric technologies from Japan available to more users around the world.

Takaaki Matsushima

KDDI CORPORATION
ta-matsushima@kddi.com   http://www.kddi.com/english/
Fields of activity: ITU-R SG4 WP4A, SG5 WP5A/5D

Studies of sharing and compatibility between Mobile and Satellite services

It is a great honor to receive the ITU-AJ Encouragement Award for my studies of sharing and compatibility between Mobile and Satellite services.

After WRC-15, the decision was made to study the compatibility of IMT and BSS (sound) in the frequency band from 1,452 to 1,492 MHz in Regions 1 and 3 (Issue 9.1.2 of the WRC-19 Agenda). Normally, only one group is responsible for each agenda item or issue. But for issue 9.1.2, two responsible groups have been assigned. WP 4A is responsible for studies relating to BSS (sound), and WP 5D is responsible for studies relating to IMT.

Since 2015, I have been attending the ITU-R WP 4A meetings as a satellite expert, and the WP 5D meetings as a mobile expert in order to discuss sharing and compatibility between Mobile and Satellite services. After WRC-15, WP 5D asked WP 4A to provide relevant technical characteristics of BSS (sound) systems and related information to support discussions of issue 9.1.2 between WPs 5D and 4A. To promote more effective collaboration between both WPs, I have not only participated in WP 5D meetings as a DG chairman specializing in MS/BSS 1.5GHz compatibility, but I have also launched a joint study by two WPs and contributed to studies of BSS (sound) in WP 4A meetings.

Not many members attend both WPs 4A and 5D. In particular, there are very few experts on issue 9.1.2. I look forward to continuing with my participation in both WPs as an expert in both satellite and mobile technology, and I hope these studies will have an acceptable outcome for both satellite and mobile members.

Cover Art

Ichikawa Danjuro
(Picture of kabuki actor Ichikawa Danjuro VII (1791-1859).
It is said that he is playing the role of Matsuomaru in Sugawara and the Secrets of Calligraphy (1823).)

Utagawa Kunisada (1786–1865)

Collection of the Art Research Center (ARC)
Ritsumeikan University
Object number: arcUY0119