

= A Serial Introduction Part 3= 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.

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Fields of activity: ICT projects in rural area



A Desire to Contribute to Society in Rural Area through ICT

I am very honored to receive the ITU-AJ Encouragement Award. Since engaging in international cooperation activities, I have been involved in projects in various countries including Vietnam, Mongolia, Myanmar, Bangladesh, and Thailand. I would like to express my deepest appreciation to my colleagues in Japan and overseas for their support in these projects.

I have greatly enjoyed traveling to different parts of Asia and meeting all sorts of people from different cultures. I find it very rewarding being able to use my ICT skills to improve the lives of others.

In a project in Mongolia in 2015, we set up a parabolic antenna to bring Internet access to a village called Khalkhgal along the border of the eastern steppe area, about 1,000 kilometers away from the capital Ulaanbaatar. We also connected the village hall, school and hospital by Wi-Fi. As a result, the local children are now able to access online teaching materials. It takes two whole days to drive from Ulaanbaatar to Khalkhgal. After the installation work, there was an opening

ceremony where it was possible to see the happiness and excitement on the faces of everyone including the village head, doctor and teacher, and where many children gathered to sing a song. Khalkhgal is located near Nomonhan, which is the site of a battle between Russia and Japan over 70 years ago. There are still many monuments marking this event. At the welcome party, we had a good time singing and dancing together. Some of my Mongolian colleagues even sang a famous Japanese song, Kitaguni-no-haru, accompanied by an electronic piano. Although this project lasted just one year, its benefits were recognized and the running costs for at least the following year were included in the village budget.

After this experience, I am keen to make further contributions to local communities. I am proud of the way Japan has supported and encouraged these people, but I hope we can do even more to accelerate and promote projects that will help people not only in other countries but also here in Japan.

Yoshikazu Narikiyo

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Fields of activity: Digital terrestrial broadcasting



International standardization of current and future digital terrestrial broadcasting

It is a great honor to receive the ITU-AJ International Activity Encouragement Award. I am deeply indebted to The ITU Association of Japan and everyone who has offered me their guidance.

Since 2014, I have been involved with Working Party 6A of ITU-R Study Group 6, where we are working on the revision and formulation of documents concerning terrestrial digital broadcasting. This included revising Recommendation ITU-R BT.1368, which relates to planning criteria, including protection ratios, for digital terrestrial television services in the VHF/UHF bands, and creating ITU-R BT.2343, which relates to field trials of 4K and 8K transmission for the next generation of terrestrial digital broadcasting.

My first job in ITU-R standardization was to revise the ITU-R BT.1368 Recommendation. This started at a meeting in the spring of 2014, where I worked on interference protection ratios for DVB-T2 and ISDB-T in Colombia, which is one of the countries in South America that has adopted the DVB-T2 standard. At the fall 2014 meeting, we revised the recommendation to make some corrections

based on experimental results obtained in Japan. With the support of Brazil, which is another member of the ISDB-T family, the issues were resolved not only at the meeting but also in preliminary behind-the-scenes discussions in Colombia. We eventually became good friends and often went out to dinner together.

I have also spent a good part of my career working on the ITU-R BT.2343 report on field trials of 4K and 8K television via terrestrial digital broadcasts. At the fall 2014 meeting, we proposed the creation of a report by Japan, and the first version of this report was published at the spring 2015 meeting. Also, for public viewings using 8K UHD TV transmissions in Brazil during the 2016 Rio Olympics, we revised the report into the form of a joint proposal by Japan and Brazil with the cooperation of the Brazilian supervisory authorities.

Through our international standardization activities at the ITU, I hope that Japan's broadcasting technology will lead the world, and that the world's broadcasting industry will continue to evolve.

Yoshitaka Hakamada

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Fields of activity: Digital broadcasting



International standardization of channel bonding for 4K and 8K cable TV transmission

I am honored to receive the ITU-AJ International Activity Encouragement Award. My sincere gratitude goes out to The ITU Association of Japan and to all my colleagues.

In Japan, we are making steady progress towards the start of 4K and 8K satellite broadcasting in December 2018. From 2014, I participated in Study Group 9 (SG9), which is concerned with cable TV research, and I became involved with the standardization of channel bonding technology that was developed for cable TV transmissions of 4K and 8K satellite broadcasts. Channel bonding technology is covered by three Recommendations (ITU-T Recommendations J.183, J.288 and J.94).

With the aim of fast-tracking the international standardization of channel bonding technology, I took part in the ITU-R SG9 meeting of September 2014, even though the system was still in the middle of being studied here in Japan. At this meeting, in order to complete the international standardization without making it inconsistent with the details of Japan's domestic standardization, I introduced a contributory document proposing revisions to existing Recommendations J.183 (multiplexing frames) and J.94 (service

information; SI), for which it was known that standardization efforts were required in Japan, and I started working on standardization at ITU-T SG9.

Then, at the ITU-T SG9 meeting in June 2015, based on the progress that Japan had made in standardization, we proposed a method for dealing with the variable-length packet format adopted for 4K and 8K satellite broadcasting, and began drafting the new Recommendation J.288.

At the ITU-T SG9 meeting in January 2016, we prepared revised drafts of the existing Recommendations J.183 and J.94 and a draft of a new Recommendation J.288 aimed at achieving consistency with the contents of the Japanese standard issued in November 2015. Following discussions at this meeting, all three draft recommendations were approved and in March 2016 they were all issued as Recommendations.

This award has encouraged me to continue working on standardization activities aimed at the development of broadcasting technology in the future.

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Fields of activity: ISDB-T, EWBS



Promoting ISDB-T in Peru — our neighbor across the Pacific Ocean

It is a great privilege to receive the ITU-AJ International Activity Encouragement Award. I would like to express my sincere gratitude to The ITU Association of Japan and all my colleagues. Starting in October 2012, I spent two years working as a technical cooperation expert for the Japan International Cooperation Agency (JICA), and spent time working in Peru to promote the spread of terrestrial digital broadcasting (ISDB-T). Like Japan, Peru is located on the Pacific "Ring of Fire", where major earthquakes and tsunamis occur periodically, and also experiences abnormal weather events that can cause flooding and other problems. I worked on the introduction of an emergency warning broadcast system (EWBS), which is one of the features of ISDB-T. Our plan was to set up terrestrial digital transmission facilities in seven cities, and to multiplex the terrestrial digital signals with EWBS from the capital city Lima so that emergency information can be received via broadcasts in rural areas. The project was officially started in 2012, and a little over four years later, we were able to start operating the system in Peru in June

2016. When an earthquake struck off the coast of Mexico (M8.1) in September 2017, EWBS was used to inform people of the arrival of a tsunami. This made Peru the first country outside Japan to make practical use of this system. In the future, I hope that Peru's EWBS will continue to protect as many people as possible.

Peru may be a long way from Japan, but we are both neighbors of the Pacific Ocean, and there are strong expectations that Peru will import terrestrial digital broadcasting and other technologies from Japan. In the meantime, I am proud to have spent two years promoting the spread of terrestrial digital broadcasting in Peru, and my contribution, however small, is something I will always remember fondly. I hope that Peru and all the other countries that have adopted ISDB-T will continue to enjoy the benefits of this technology in the future. With the encouragement of this award, I hope to continue working on the international development of ISDB-T, and perhaps contribute to the spread of next-generation 4K and 8K broadcasting systems.