

= A Serial Introduction Part 4 = Winners of ITU-AJ Encouragement Awards 2024

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.

Masashi Fushiki

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Fields of activity: 3GPP RAN WG4



Contribution to the standardization of radio performance in 3GPP

I am deeply honored and grateful to receive the ITU Association of Japan Encouragement Award, and I would like to express my sincere appreciation to all those involved for their invaluable support.

The decision to grant this award was based on my work as Rapporteur for the specification of radio performance requirements for millimeter-wave-supporting fixed wireless access terminals in 3GPP RAN working group 4. Despite the challenges of online meetings due to the COVID-19 pandemic, I persevered in coordinating with various companies, carefully understanding

their respective positions. We were able to gradually build consensus. The successful development of this specification was a deeply rewarding experience.

I am currently continuing my standardization activities in 3GPP RAN working group 4. I am committed to using my past experiences to promote smoother discussions and contribute to efficient standardization.

3GPP will be intensifying discussions on the development of 6G. I hope to leverage my experience and knowledge to contribute to the development of wireless communications.

Hiroto Yamazaki

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Fields of activity: International cooperation on digital transformation (DX),
ICT infrastructure, and cybersecurity



Contribution to International Cooperation in ICT and Cybersecurity

I am deeply honored to receive the distinguished ITU Association of Japan Encouragement Award. I would like to express my sincere gratitude to everyone at the association and all those involved.

I believe that ICT and digital technologies have the potential to greatly change people's lives and promote economic development, even in developing countries. In collaboration with numerous stakeholders, I have had the privilege to contribute to a diverse array of projects related to the promotion of ICT and digitalization. These projects have included initiatives such as promoting the spread of terrestrial digital broadcasting in Africa, examining the development of a data exchange platform, and strengthening disaster prevention communication capabilities in Oceania.

In the same vein, it is important to acknowledge the growing concern regarding cyberattacks in developing countries. These attacks pose a significant challenge, not only to national security

but also to personal privacy. In this regard, it is essential to explore avenues for international cooperation, with the aim of leveraging the immense benefits that technology offers while addressing its potential risks. However, many countries face the challenge of a shortage of human resources. In light of this, I have been dedicating my efforts to the development of human resources in developing countries. Specifically, I have had the privilege of conducting cybersecurity training and awareness-raising activities in Viet Nam, Cambodia, the Philippines, and other countries.

ICT and digital technologies have the potential to bridge gaps and positively impact society. I hope to continue contributing to the field of international cooperation and the sustainable development of developing countries. In particular, in the field of cybersecurity, I would like to focus on human resource development. I will seek to further strengthen cybersecurity human-resource development in developing countries and cultivate each country's capacity to address cyber challenges.

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Fields of activity: Haptics, Well-being



Rules for communicating haptic sensations remotely

The spread of COVID-19, during which direct skin contact was discouraged, was a crossroads in haptic research. Prior to the pandemic, I had been working to create new experiences by transmitting haptic information in addition to visual and auditory information. For example, there is a system called the “Public Booth for Vibrotactile Communication,” which was added to the use cases for standardization. The system allows users at two remote locations to share vibrations on desks in addition to video and audio. When a person taps on one desk, the vibration is sent to the remote location, causing the remote desk to vibrate. Communications using the sense of touch expand the possibilities of dialogue and foster a sense of intimacy between remote users.

To enable many people to enjoy such experiences, rules for transmitting haptic information are necessary. This is a major motivation for me to engage in standardization activities for haptic information transmission. Among the several types of haptic information, such as pressure, vibration, and temperature,

vibration information can use existing audio transmission formats. This has been a significant advantage in promoting the standardization of haptic information transmission, though there are distinct aspects as follows. The frequency bandwidth of vibration information is biased toward the low-frequency side, and the information must be transmitted using uncompressed or lossless compression. It is also necessary to determine the allocation of channel signals to bodily parts for suitable presentation of haptic information.

Modern society is said to be in an age of complexity and unpredictability, where people with diverse values must engage in sustained dialogue to realize ideas and actions that cannot be done alone. In the future, the importance of haptic communication will increase, and the transmission of haptic information based on standards will bring more choices in the way people connect and communicate with each other.