= A Serial Introduction Part 1 =
Winners of ITU-AJ Encouragement Awards 2022

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: ETSI ISG ZSM, O-RAN WG10

Autonomous Network and Service Management

I am delighted to receive the Encouragement Award from the ITU Association of Japan. I greatly appreciate the support of my colleagues in ETSI ISG ZSM and my company.

I have been involved in ETSI ISG ZSM since 2018 and this was my first standardization activity. In ETSI ZSM, we aim to realize full end-to-end autonomous networks and service management. It has become an urgent necessity to realize the autonomous networks because networks are getting more complex and the number of experienced maintainers is decreasing. Although achieving our goal in a short time will be difficult, we need a standard specification for autonomous networks. We have been actively discussing and have already published many specifications toward this goal.

One particular specification that I focused on was for Closed loop models required for lifecycle management of closed loops, which is covered in GS ZSM009-1 Closed-Loop Automation. I took the lead in organizing many ad hoc meetings and received cooperation and support from many colleagues across different companies. At the plenary session there were many opposing opinions and we had difficulty getting our contributions approved, but we discussed it together cooperatively and finally they were approved.

Recently we have started studying new fields such as Intent-driven Autonomous Networks and Network Digital Twins, for more- autonomous networks. With Intent-driven Autonomous Networks we could realize a world where systems automatically perform maintenance and operation by inputting declarative statements. Please join ETSI ISG ZSM if you would like to get involved in standardization activities for this kind of advanced technologies.

Finally, my current focus is on ETSI and O-RAN work, and I hope to work with ITU and many other standards organizations in the future.

Topic

At the ITU Plenipotentiary Conference 2022 in Bucharest, Mr. ONOE, Seizo was elected new Director of the ITU Telecommunication Standardization Bureau for the term January 1, 2023 - December 31, 2026.

Japan was also elected a Council Member state.
We thank you for your endorsement, and look forward to fruitful four years to come !

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Fields of activity: ITU-T SG17, ITS security

Collaborative work at ITU-T aiming to create secure ITS for the future

At this time, I would like to express my deep appreciation on receiving an ITU-AJ Encouragement Award. I would also like to thank the many people at ITU-AJ who have offered me their valuable assistance and cooperation in past activities.

I have had the opportunity since 2018 to participate in standardization activities in relation to Intelligent Transport Systems (ITS) in ITU-T SG17. Specifically, I have been engaged in the creation of Recommendations that stipulate the requirements for appropriate measures to defend against security threats to the various types of data exchanged in Vehicle to Everything (V2X) communications, in which an automobile equipped with communication functions (Vehicle) communicates with other vehicles, transport infrastructure facilities, and ICT services (Everything).

In this work, proposals are received not only from telecom operators but also from automobile manufacturers, suppliers, and other parties. As a result, conflicts can arise in the process of compiling proposals from multiple parties with different roles and expectations into a single Recommendation. Nevertheless, by extracting the ideas and grounds behind those proposals and negotiating patiently to obtain mutual understanding and consent, I was able to make progress in this work. I was greatly impressed with the sincere efforts of multiple parties to collaborate based on the common objective of creating secure ITS for the future.

Since May 2022, I have been serving as associate rapporteur of Question 13 in ITU-T SG17. I would like to continue in this activity while collaborating closely with all concerned. In addition, I would like to serve as a source of support for others involved in standardization activities based on my own experiences in receiving assistance from many of my seniors. With this in mind, I will make every effort to fulfill my duties in returning the results of R&D in advanced technologies to society.

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Fields of activity: WP5A, WP5C, SG5

Activities for Revision of Recommendations related to UHDTV-FPU

It is a great honor to receive the Encouragement Award from the ITU Association of Japan. I would like to express my sincere gratitude to the ITU-AJ and everyone that has given me guidance and encouragement.

Radio systems are indispensable in the production of broadcast programs, such as a live broadcast from the scene of an incident or live production of a marathon race. Program transmission systems for broadcasting are called Field Pick-up Units (FPUs). In Japan, microwave band FPUs (5 to 7 GHz band and 10 to 13 GHz band) and millimeter wave band FPUs (42 GHz band), which can transmit 4K/8K UHDTV (Ultra-high-definition Television) programs, have been standardized and are already in operation. In ITU-R, the system characteristics of television outside broadcast are described in the Recommendation F.1777 in the fixed service and the Recommendation M.1824 in the mobile service. I have worked on revision of both Recommendations, to add the latest FPU characteristics for UHDTV in WP5A and WP5C.

I first drafted the revision of Recommendation F.1777 around March 2020. Then I further revised the draft with suggestions and advice through the domestic deliberations and submitted the contribution to WP5C in July 2020. The Japanese proposal was output successfully as a working document. A contribution proposing a revision of M.1824 was submitted to the WP5A meeting in November 2020, and since then, revision work was carried out in parallel in the WP5A and WP5C meetings. Thanks to the cooperation of the Japanese delegation, the deliberations proceeded smoothly and both recommendations were revised in February 2022.

I hope that these revisions of the Recommendations will reflect Japan's advanced efforts regarding program transmission systems for UHDTV and will be helpful for sharing studies of important radio systems. With this valuable experience, I will continue to contribute to promotion and standardization of R&D results.

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Fields of activity: 3GPP CT1/CT3, TTC

International standardization and creating highly compatible IP interconnect standards between IMS operators in Japan

It is a great honor to receive this ITU-Association of Japan Encouragement Award. I would like to offer sincere thanks to everyone at the ITU-AJ and the many others who have given their guidance and support.

I have been involved in standardization of IMS inter-operator Network-to-Network interface specifications at 3GPP since 2011. This is part of IMS, which has been adopted as the IP multimedia communication specification since IMT- 2000 by ITU. The objective of this work was to create a domestic specification for IP interconnection between the networks of domestic telephone operators in Japan, while also maintaining consistency with international standards. We have participated in both domestic and international standardization processes to create these standards. During the four years from 2017 to 2021 as the vice-chair of the 3GPP CT3 WG, I was also involved in standardization of the 5G Core Network specifications, the Northbound API specifications and others, in addition to work on IMS specifications. These were also very valuable experiences.

A particularly difficult issue during these activities was how to resolve differences that arose between domestic requirements and international specifications. Often it could take deliberation over six months or more, just to add or change a short description in a signalling specification. However, building arguments and holding discussions with other participants toward resolving such issues is the whole point of standardization, and the experience and personal connections gained through that activity are valuable assets.

Currently at 3GPP, service requirements, architecture, and protocol specifications for 5G Advanced and Beyond 5G are being studied. One part of this work related to IMS and voice services is the Real Time Communication specification, which will provide AR/VR and is promising for developing future communication services. I hope to continue working and contributing to study of new specifications and international standardization in the telecommunications industry as it continues to develop.

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Fields of activity: ITU-T SG5

Standardization activities in the field of telecommunications EMC

I am very thankful to be receiving this encouragement award from an organization with the history and prestige of the ITU Association of Japan. I would also like to thank everyone for their support of activities in ITU-T SG5.

I have been participating in ITU-T SG5 activities since 2011, involved in revisions of various recommendations in the telecommunication EMC field. In this work, most of my focus was on establishing the Recommendation, "Method for radiated immunity testing anticipating use of radio devices near telecommunications equipment."

In the past, there were cases when radio waves emitted by mobile phones used nearby interfered with operation of communication equipment, so for many years, use was discouraged. However, considering the proliferation of smartphones and tablets and the need to optimize equipment maintenance work, more recently it has become necessary to clearly define emission immunity requirements for communications equipment taking into account that radio devices could be used nearby.

Clarifying these technical requirements involved performing emission immunity tests on approximately 300 types of communication equipment, conducting simulations to define the requirements, liaising with IEC, and holding many discussions with participants over roughly two years before the Recommendation was completed. We achieved this goal through steady effort and through it I gained great experience and growth.

Building on this experience in the future, I will continue to contribute to standardization activities as an associate rapporteur for SG5/Question 1, dealing with EMC issues that arise in development of ICT technologies.