

# Newsletter ARIB SEASON



No.0026

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### *Topics*



### **The 9th Study Group Meeting on Terahertz wave utilizations for sensing**

The Study Group has conducted extensive research on development issues, frequency requirements, institutional issues, to put the terahertz wave utilization system to practical use, aiming to clarify the applications expected in the sensing field.

The 9th meeting was held from 26 to 31 March by way of e-mail deliberation to prevent Coronavirus infection. The report "Terahertz Study Group Report - Sensing", which summarizes the results of the research on the use cases of THz-TDS (Time Domain Spectroscopy), camera and radar, which are the main technologies of terahertz sensing, was unanimously approved.

The Study Group, which was established in February 2018, has been completed with publication of two reports: on telecommunication in April 2019 and on sensing in March 2020.

## The 4th Study Group Meeting on Weather Radar

The 4th meeting of the Meteorological Radar Study Group was held as a web conference with 21 participants from the member companies of the Society, the Ministry of Internal Affairs and Communications (MIC), the Ministry of Land, Infrastructure and Transport, and from others.

At the 4th meeting, MIC (Deputy Director Mr. Tanada) presented the study results of frequency sharing with coastal surveillance radar (interference) and the survey results of needs for 9.7 GHz band general-purpose radar. Toshiba clarified DFS (Dynamic Frequency Selection) technical conformance test for C band radar.

Based on the above results, it was agreed on the following aspects.

- (1) There is almost no problem of interference with coastal surveillance radar.
- (2) Regarding the interference between the 9.7 GHz band general-purpose radar and the high-performance weather radar, it is possible to assign frequencies to the former by allowing interference on the latter.
- (3) Consensus was reached on the proposed test conditions for the DFS technical conformance test.

As conclusion had been reached on the agenda items, the Meteorological Radar Study Group was concluded at this meeting.

## The 58th CJK IMT Working Group Meeting

CJK IMT Working Group Meeting is aiming to exchange information and views about the activities of international IMT standardizations in ITU-R, APT, 3GPPs, and so on, among members of SDOs in China, Korea, and Japan.

### 1. Outline of the meeting

Schedule	20 and 21 May 2020
Venue	(Web Meeting) * Though it was the first time for the IMT WG to be held online in order to avoid COVID-19, discussion was as active as usual.
Participants	ARIB (Japan) 12, CCSA (China) 32, TTA (Korea) 14

### 2. Main results

- (1) The results of the 34th ITU-R SG5 WP5D meeting held in January 2020 and the recent discussions at 3GPP were shared.
- (2) The information was shared on the contribution to be input regarding frequency-related issues.
- (3) Opinions on IMT-2020 radio interface recommendations were exchanged, and it was agreed on that the WG would continue working for the joint contribution.

- (4) As a result of reviewing the organization, the SIG-Future-IMT which studies the latest technology for the future, and SIG-Verticals which studies expansion of IMT use in various industrial fields were decided to be established.

3. Next meeting schedule

The next CJK IMT Working Group Meeting would be scheduled in August 2020 in China but might be held online.

**5GMF won the 2020 “Radio Day” Minister of Internal Affairs and Communications Award**

5GMF (The Fifth Generation Mobile Communications Promotion Forum) for which ARIB serves as a secretariat was awarded by MIC as an organization that had contributed to the development of ICT on the 70th "Radio wave day" (1 June 2020) in Japan.

Activities for over the past five years since its establishment in September 2014 toward smooth introduction of the 5G system in Japan, such as collaboration with industry, academia and government to implement 5G system, studies of technological trends, standardization and promotion of many programs including international collaboration in coordination with MIC's policy, were highly appreciated.

**The 24th General Assembly of Electromagnetic Environment Committee and Briefing session on contracted researches**

The 24th General Assembly of Electromagnetic Environment Committee (EEC) was held online on 4 June 2020, where business / financial report was accepted and business / financial plan for the next fiscal year was approved. Following the General Assembly, briefing session on contracted researches from EEC was also held also online. The titles and reporters of the briefing were as follows.

	Contractor	Title of briefing
1	Prof. Tomonori Sakurai: Gifu Pharmaceutical University	Assessment of the effects of radio exposure on Alzheimer disease
2	Prof. Yoshikazu Ugawa: Fukushima Medical University  Assistant Prof. Setsu Enomoto: Teikyo Heisei University	Study on the influence of LTE on event related potential using human auditory stimulation

## The 31st Radio Achievement Award

The 31st Radio Achievement Award was released on 24 June 2020. This award is presented every year by the MIC and the Chairman of the Board of ARIB to individuals and groups who have made a significant achievement relating to effective and proper use of radio wave.

The award ceremony which is held in late June every year on the same day with the annual general meeting of ARIB was canceled this year, because the general meeting was postponed to September due to the spread of Coronavirus infection. The winners were individually awarded.

This year's winners are as follows.

### 1. The Award of the Minister of Internal Affairs and Communications

- (1) Development and commercialization of 5th generation mobile communication system (5G)  
NTT DOCOMO, INC., KDDI CORPORATION, SoftBank Corp.
- (2) Research and development of Mobile Field-Pickup-Unit for 4K/8K UHD TV Program  
NHK (Japan Broadcasting Corporation)
- (3) Promotion of 5.2GHz band wireless LAN outdoor use and implementation at the National Stadium  
NTT Broadband Platform, Inc., NIPPON TELEGRAPH AND TELEPHONE CORPORATION, Panasonic Corporation

### 2. The Award of the Chairman of the Board of ARIB

- (1) Practical application and international standardization of "Time / three-dimensional spatial propagation estimation method" for ultra-high speed / broadband mobile communications  
SoftBank Corp., Tokyo Institute of Technology
- (2) Promotion of frequency sharing associated with 700MHz band usage termination measures  
Association of 700MHz Frequency Promotion, SoftBank Corp., NTT DOCOMO, INC., KDDI CORPORATION
- (3) Commercialization and promotion of emergency personal receivers complied with the Fire Agency guidelines  
Hitachi Kokusai Electric Inc.
- (4) Development of glass antenna of buildings and cars for mobile telecommunication  
NTT DOCOMO, INC., AGC Inc.
- (5) Development of on-board mobile communication system for helicopter and drone  
KDDI CORPORATION



**Association of Radio Industries and Businesses**

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