

Report on the Japan-Korea Joint Conference on Satellite Communications (JC-SAT 2021)

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1. Overview

This article reports on the Japan-Korea Joint Conference on Satellite Communications (JC-SAT) that was held on October 7th and 8th, 2021. Unfortunately, it was held online for Japanese and, on/off-line in Pusan for Korean, due to the COVID-19 pandemic.

This conference was jointly organized by Technical Committee on Satellite Communications of IEICE in Japan and the Korean Society of Space Technology (KOSST) in South Korea and sponsored by the IEEE VTS Tokyo/Japan Chapter.

The JC-SAT intends to provide a forum for researchers in the field of satellite communications and applications to discuss the current status, technical challenges, standards, fundamental issues, and future services (Fig.1).

2. Report on Sessions

The technical program of the JC-SAT 2021 consisted of 6 sessions, in which 23 general papers and 5 special papers were presented. The total number of registered participants reached about 60 from Japan and Korea. The presented papers covered a wide range of unique and novel technical topics on satellite communication.

On the first day, two general sessions including three special talks were held. Dr. Ki-kuen Kim, a general chairperson of the JC-SAT 2021, gave a welcome speech, and Prof. Hiroyasu Ishikawa, a general co-chairperson of the JC-SAT 2021, presented a congratulatory address in the opening ceremony. During the sessions, following special talks were presented;

- Prof. Yuichi Kawamoto, “Toward Realizing Space-Air-Ground Integrated Networks”,
- Prof. Hongyul Paik, “Ring of Equator”, and
- Dr. Franck Beillevaire, “Thales TWT for satellites: last developments and technical progress”.

On the second day, four general sessions, including the following special talks were held;

- Dr. Hyoung Yoll Jun, “New Korean GEO Communication Satellite Program”, and
- Dr. Byoung-Sun Lee, “ETRI SATCOM R&D Activities - Past Achievements, Current Projects, and Future Plans”.

3. JC-SAT Award Ceremony

At the end of the second day, the technical committee of the JC-SAT 2021 announced the winners of the

outstanding research paper award (JC-SAT Award) among all submitted general papers.

Both IEICE and KOSST technical members profoundly reviewed all the papers and discussed the review results of award candidate papers, which was a mandatory condition for award authorization.

Through the above procedure, the following two papers were honored with the JC-SAT Award.

- Sang-Pil Lee, Sung-Min Noh, Deuk-Hyeon Ga, Jaesin Kim and Yong-Hyeok Lee, “Design of Stacked Microstrip Patch Antenna Unit with 4 × 4 Sub Array Using Shared Aperture Tx/Rx Phased Arrays at Ka Band”
- Ryouichi Nishimura, Byeongpyo Jeong, Hajime Susukita and Takashi Takahashi, “A potential cause of pulsed noises in receiving BS signals”

During the JC-SAT Award ceremony on the second day, the winners were handed the award certificates (Fig.2).

4. Conclusions

Dr. Sangil Ahn, a chairperson of the technical committee of the JC-SAT 2021, delivered a closing speech, reporting that the JC-SAT 2021 concluded with a great success despite the first on/off-line style. The technical committee members held a pre-meeting on the day before the first day of the JC-SAT 2021. At the pre-meeting, it was discussed the next JC-SAT schedule. JC-SAT 2022 will be held on October 6th and 7th, 2022 in Fukuoka, Japan.



Fig.1 CFP.



Fig.2 Award Certificate.