

The IEICE Technical Committee on Satellite Communications

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The technical conference by the IEICE Technical Committee on Satellite Communications was held in 24, 25 February, 2011, with the Space, Aeronautical and Navigational Electronics Committee. They have planned to joint technical conferences in these years and help both committee members to aggressively communicate each other. The conference in this time was held in the Kobe NICT Laboratories, about 25 minutes by bus and walk from Okubo station in Hyogo Prefecture, West part of Japan. The conference theme was “Satellite application and general technologies,” and there were 11 regular presentations and one special talk.

By the NICT’s large efforts, the conference hole and the Koganei NICT Laboratories in Tokyo were connected by both way high-speed video transmission via WINDS satellite. This was first remote conference trial of the Satellite Committee and made it for the audience in Koganei to listen in the presentation in Kobe and join the technical discussions. This led more than audience of 100 in 2 days totally, 50% increasing compared to the past.

The regular presentations were held in 2 days. First day, there were 3 presentations, circular polarization forming in mobile satellite communica-



Fig.2 Special talk: Prof. Kawai

tions, adaptive access control to optimize frequency and power resources of transponder, satellite elevation angle diversity. In second day, there were 8 presentations, nonlinearity compensation technique in superpositioning satellite communications, variable symbol rate single carrier modulation by re-sampling filter, spurious noise performances of DDS, spatially superposition by M-ary modulated signals, high-speed TDMA experimental system by WINDS, overview of ETS-VIII application experiments, interference estimation of STICS and operation algorithms for triaxial optical ground station. There were many technical questions and comments not only from main hole in Kobe but also from the audience in Koganei.

The special talk was “Short history of satellite communication research –The origin and background of multiport amplifier–” by Prof. Kawai of Ritsumeikan University who was a special adviser of the Technical Committee on Satellite Communications. His talk consisted of his experiences in his research carrier and the inside stories on the way to develop new products. It got a favorable notice and was gathered attentions of the younger researchers.



Fig.1 The conference hole(left; main monitor, right: Koganei audience monitor)